Devi, S.
09/386266

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Set Items Description
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- key terms

Set	Items	Description
S1	606	(PLGA OR PLG)(10N)LACTIDE
S2	3458	LACTIC(10N)GLYCOLIC
S3	859	POLY(W)(D(W)L OR DL)(W)LACTIDE(1W)GLYCOLIDE
S4	14	(S1 OR S2 OR S3) AND (TH1 OR TH(W)1)
S5	9	RD (unique items)

>>>No matching display code(s) found in file(s): 65, 113

5/3,AB/1 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal
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14094998 PASCAL No.: 99-0288585
Induction of cellular immunity to a mycobacterial antigen adsorbed on lamellar particles of lactide polymers
VENKATAPRASAD N; COOMBES A G A; SINGH M; ROHDE M; WILKINSON K; HUDECZ F; DAVIS S S; VORDERMEIER H M
MRC Clinical Sciences Centre, Tuberculosis & Related Infections Unit, Hammersmith Hospital, DuCane Road, London V12 0NN, United Kingdom; Department of Pharmaceutical Sciences University of Nottingham, University

Park, Nottinghan NG7 2RD, United Kingdom; GBF German National Research Centre for Biotechnology, Mascheroderweg 1, 38124 Braunschweig, Germany; Research Group of Peptide Chemistry, Hungarian Academy of Science, Eoetvoes L. University, Budapest 112., POB 32, 1518, Hungary

Journal: Vaccine, 1999, 17 (15-16) 1814-1819

Language: English

Microspheres prepared from synthetic, biodegradable poly (L-lactide) (PLA) and copolymers of *lactide"** and glycolide such as *poly"** (*DL"** *lactide"** co-*glycolide"**) (*PLG"**) have been widely investigated for controlled delivery of encapsulated vaccine antigens. In this study we describe novel lamellar microparticles produced from PLA to which protein antigens can be adsorbed. These particles when administered to mice, induced strong *Th1"**-type T cell responses to the adsorbed 38 kDa protein antigen from M. tuberculosis characterised by high levels of Interferon-gamma. In addition to proteins, we were also able to adsorb synthetic peptides resulting in specific T cell proliferation. Induction of strong cellular immunity together with the versatility of antigen adsorption to these particles should make such lamellae a useful tool to deliver protective antigens from intracellular pathogens.

5/3,AB/2 (Item 2 from file: 144)
DIALOG(R)File 144:Pascal

13932472 PASCAL No.: 99-0114720

A comparison of biodegradable microparticles and MF59 as systemic adjuvants for recombinant gD from HSV-2

SINGH M; CARLSON J R; BRIONES M; UGOZZOLI M; KAZZAZ J; BARACKMAN J; OTT G ; O'HAGAN D

BROWN Fred, ed; NARA Peter L, ed

Adjuvant Research Division, Chiron Corporation, 4560 Horton Street, Emeryville, CA 94608, United States

Plum Island Animal Disease Center, Greenport, NY 11944, United States; Biological Mimetics Inc., Frederick, MD 21701, United States

International Society for Vaccines, International.

International Society for Vaccines Symposium on Vaccinology (Leesburg, Virginia USA) 1997-09-08

Journal: Vaccine, 1998, 16 (19) 1822-1827

Language: English

A recombinant form of glycoprotein D from herpes simplex virus type-2 (gD2) was encapsulated into potylactide-co-glycolide (PLG) microparticles using a previously established solvent evaporation technique. The mean size of the microparticles was about 1 mu m and high encapsulation efficiency of the antigen was achieved (70-80%). The microparticles were administered intramuscularly to Balb/C mice and the immune reponses were compared with

those obtained with the oil in water adjuvant MF59. The serum IgG response to gD2 induced by the microparticles was comparable with that induced by MF59. The serum neutralization titres were also comparable for microparticles and the emulsion. However, the microparticles induced a higher IgG2a isotype response and a more potent serum IFN- gamma response than MF59, suggesting a more *Th1"** type of response. The MF59 induced higher levels of serum IL-4 and IL-5 cytokines, suggesting a more Th2 type of response.

5/3,AB/3 (Item 3 from file: 144)
DIALOG(R)File 144:Pascal

13888542 PASCAL No.: 99-0067921
Delivery of MUC1 mucin peptide by poly(d, l-*lactic"**-co-*glycolic"** acid) microspheres induces type 1 T helper immune responses
NEWMAN K D; SOSNOWSKI D L; KWON G S; SAMUEL J
Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Edmonton Alberta, Canada; School of Pharmacy, University of Wisconsin, Madison, Wisconsin 53706, United States
American Chemical Society. Division of Biotechnology, United States.; Controlled Release Society, Inc., Unknown.
Annual Conference on Formulations and Drug Delivery, 2 (La Jolla, California USA) 1997-10-05
Journal: Journal of pharmaceutical sciences, 1998, 87 (11) 1421-1427
Language: English
square Synthetic peptides corresponding to the variable tandem repeat domain of the cancer-associated antigen MUC mucin are candidates for cancer vaccines. In our investigation mice were immunized via subcutaneous injection with poly(d,l-*lactic"**-co-*glycolic"** acid) (PLGA) microspheres containing a MUC mucin peptide. It was hypothesized that microencapsulation of the MUC mucin peptide would prime for antigen-specific *Th1"** responses while avoiding the need for traditional adjuvants and carrier proteins. Furthermore, an immunomodulator, monophosphoryl lipid A (MPLA), was incorporated into the peptide-loaded PLGA microspheres based on its ability to enhance *Th1"** responses. The results revealed T cell specific immune responses. The cytokine secretion profiles of the T cells consisted of high levels of interferon- gamma with undetectable levels of interleukin-4 and interleukin-10. Moreover, incorporation of MPLA in the MUC peptide-loaded PLGA microspheres resulted in an increase in interferon- gamma production. The antibody response was negative for IgM and IgG in the absence of MPLA; however, in the presence of MPLA antibody production was negative for IgM with a minimal IgG response consisting of IgG2a, IgG2b, and lgG3. Based on the antibody and cytokine profiles, it was concluded that MUC mucin peptide-loaded PLGA

microspheres are capable of eliciting specific *Th1"** responses, which may be enhanced through the use of MPLA.

5/3,AB/4 (Item 4 from file: 144)
DIALOG(R)File 144:Pascal

13611320 PASCAL No.: 98-0316855
Ovalbumin peptide encapsulated in poly(d, l *lactic"**-co-*glycolic"** acid) microspheres is capable of inducing a T helper type 1 immune response
NEWMAN K D; SAMUEL J; KWON G
3118 Dentistry/Pharmacy Centre, Faculty of Pharmacy & Pharmaceutical Sciences, University of Alberta, Edmonton, Alberta T6G 2N8, Canada
Journal: Journal of controlled release, 1998, 54 (1) 49-59
Language: English
An ovalbumin (OVA) peptide, consisting of residues 323-339, was incorporated into poly(d,l *lactic"**-co-*glycolic"** acid) (PLGA) microspheres and administered to mice. It was hypothesized that microencapsulation of the peptide in PLGA microspheres would avoid the need for traditional adjuvants and bias the immune response towards a type 1 T helper (*Th1"**) response. An immunomodulator, monophosphoryl lipid A (MPLA), was incorporated into the microspheres to determine its efficacy in enhancing a *Th1"** response. The specificity of the immune response was determined using a T cell proliferation assay. The type of T helper response was determined by analysis of the cytokine secretion profiles of the proliferating T cells. Following s.c. immunization, the results revealed a T cell-specific immune response for the encapsulated OVA peptide both with and without MPLA. The cytokine profiles revealed high levels of IFN- gamma with very low levels of IL-4 and IL-10, suggesting a Th1 response. Furthermore, incorporation of MPLA in the peptide loaded PLGA microspheres resulted in an increase in the production of IFN- gamma Hence, peptide-loaded PLGA microspheres are capable of eliciting a specific Th1 immune response, which may be further enhanced in the presence MPLA.

5/3,AB/5 (Item 5 from file: 144)
DIALOG(R)File 144:Pascal

12524961 PASCAL No.: 96-0199411
Immunization with a soluble recombinant HIV protein entrapped in biodegradable microparticles induces HIV-specific CD8 SUP + cytotoxic T lymphocytes and CD4 SUP + *Th1"** cells

MOORE A; MCGUIRK P; ADAMS S; JONES W C; MCGEE J P; O'HAGAN D T; MILLS K H G
Infection and Immunity Laboratory, Biology Department, St Patrick's College, Maynooth, Co. Kildare, Ireland
Journal: Vaccine, 1995, 13 (18) 1741-1749
Language: English
One of the major obstacles to the development of successful recombinant vaccines against human immunodeficiency virus (HIV) and other intracellular pathogens is the identification of a safe and effective vaccine delivery system for the induction of cell mediated immunity with soluble protein antigens. In this study it was demonstrated that immunization with a recombinant HIV envelope (env) protein entrapped in biodegradable poly(*lactide"**-co-glycolide) (*PLG"**) microparticles induced consistent HIV-specific CD4 SUP + and CD8 SUP + T-cell responses in mice. Major histocompatibility complex (MHC) class I-restricted cytotoxic T lymphocytes (CTL) responses were detected following a single systemic immunization with gp120 entrapped microparticles and when given by the intranasal (in.) route induced HIV-specific CD8 SUP + CTL and secretory IgA. Furthermore immunization with gp120 entrapped in microparticles generated CD4 SUP + T cells that secreted moderate to high levels of IFN- gamma . Therefore, PLG microparticles are a safe and effective means of delivering antigen to the appropriate processing site for the generation of class I-restricted CTL, and are also capable of inducing *Th1"** cells.

5/3,AB/6 (Item 1 from file: 440)

12540452 GENUINE ARTICLE#: 412DF NUMBER OF REFERENCES: 39
TITLE: Protection against Bordetella pertussis infection following parenteral or oral immunization with antigens entrapped in biodegradable particles: effect of formulation and route of immunization on induction of *Th1"** and Th2 cells
AUTHOR(S): Conway MA; Madrigal-Estebas L; McClean S; Brayden DJ; Mills KHG (REPRINT)
AUTHOR(S) E-MAIL: kingston.mills@may.ie
CORPORATE SOURCE: Natl Univ Ireland, Infect & Immun Grp, /Maynooth/Kildare/Ireland/ (REPRINT); Natl Univ Ireland, Infect & Immun Grp, /Maynooth/Kildare/Ireland/; Trinity Coll, /Dublin//Ireland/
PUBLICATION TYPE: JOURNAL
PUBLICATION: VACCINE, 2001, V19, N15-16 (FEB 28), P1940-1950
PUBLISHER: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND
ISSN: 0264-410X
LANGUAGE: English DOCUMENT TYPE: ARTICLE
ABSTRACT: The immunogenicity and protective efficacy of systemically and orally delivered pertussis antigens entrapped in either microparticle

poly-*lactide"**-co-glycolide (*PLG"**) or nanoparticle *PLG"** formulations were evaluated in a murine respiratory challenge model for infection with Bordetella pertussis. The results demonstrate that immunization with two parenteral doses of 1 mug or three oral doses of 100 mug of pertussis toroid (PTd) and filamentous haemagglutinin (FHA) encapsulated in PLG conferred a high level of protection against B. pertussis challenge. Furthermore protection could be generated with a single parenteral immunization with a combined microparticle and nanoparticle formulation. However. the route of immunization and the size of the particles affected the type of T cell response induced. Parenteral immunization with PTd and FHA entrapped in PLG microparticles elicits a potent type 1 T cell response and potent antibody response when given by the intraperitoneal (i.p.) or intramuscular (i.m.) route. In contrast, nanoparticle formulations favoured the induction of Th2 cells. (C) 2001 Elsevier Science Ltd. All rights reserved.

5/3,AB/7 (Item 2 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

12102603 GENUINE ARTICLE#: 365CH NUMBER OF REFERENCES: 38
TITLE: Oral immunization with size-purified microsphere beads as a vehicle selectively induces systemic tolerance and sensitization
AUTHOR(S): Matsunaga Y; Wakatsuki Y (REPRINT); Tabata Y; Kawasaki H; Usui T ; Yoshida M; Itoh T; Habu S; Kita T
AUTHOR(S) E-MAIL: h50638@sakura.kudpc.kyoto-u.ac.jp
CORPORATE SOURCE: Kyoto Univ, Div Clin Bioregulatory Sci, /Kyoto//Japan/ (REPRINT); Kyoto Univ, Div Clin Bioregulatory Sci, /Kyoto//Japan/; Kyoto Univ, Biomed Engn Res Ctr, /Kyoto//Japan/; Tokai Univ, Div Host Defense Mechanism, /Kanagawa 2591100//Japan/
PUBLICATION TYPE: JOURNAL
PUBLICATION: VACCINE, 2000, V19, N4-5 (OCT 15), P579-588
PUBLISHER: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND
ISSN: 0264-410X
LANGUAGE: English DOCUMENT TYPE: ARTICLE
ABSTRACT: Oral administration of antigens has long been recognized as a method to prevent or delay the onset of diseases associated with untoward immune responses to self and non-self antigens. Although oral administration of antigens offers a convenient way to induce systemic tolerance, its therapeutic potential has been seriously limited by the fact that it requires repeated feeding of a large amount of antigens and that it may deteriorate ongoing autoimmune diseases when autoantigens are employed. We have previously shown that orally administered poly-D,L-lactic acid (PDLLA) microspheres containing an antigen were selectively distributed to Peyer's patches (PP) and

systemic lymphoid tissues according to their diameter and then released the antigen over a long period of time. We now report that a single dose of intragastric immunization with a PDLLA microsphere 7-10 mu m in diameter and containing 2 mg of OVA. was as effective as 100 mg of water soluble OVA to suppress OVA-specific IgG and DTH response. This was associated with a large increase of Interferon-gamma production by PPT cells stimulated with an antigen and a small increase in secretory IgA specific-to OVA, In contrast, administration of an antigen encapsulated in microspheres 3-4 mu m in diameter led to an enhanced OVA-specific IgG response and no significant increase in OVA-specific secretory IgA. Thus, by utilizing microspheres of an appropriate diameter as a vaccination vehicle, we were able to selectively induce both systemic tolerance and sensitization by oral ingestion of single low dose of an antigen. (C) 2000 Elsevier Science Ltd. All rights reserved.

5/3,AB/8 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00870006
Anti-angiogenic compositions and methods of use
Anti-angiogene Mittel und Verfahren zu deren Verwendung
Compositions anti-angiogeniques et leurs procedes d'utilisation
PATENT ASSIGNEE:
Angiotech Pharmaceuticals, Inc., (1910122), Suite 2120 Oceanic Plaza, 1066 West Hastings Street, Vancouver, British Columbia V6E 3X1, (CA), (Applicant designated States: all)
THE UNIVERSITY OF BRITISH COLUMBIA, (917325), Office of Research Services and Industry Liaison, Room 331, I.R.C. Building, 2194 Health Sciences Mall, Vancouver, British Columbia V6T 1Z3, (CA), (Applicant designated States: all)
INVENTOR:
Burt, Helen M., 240 East 40th Avenue, Vancouver B.C. V5W 1L8, (CA)
Jackson, John K., 4001 West 33rd Avenue, Vancouver B.C. V6N 2HN, (CA)
Hunter, William L., 5252 N. Penticton Street, Vancouver B.C. V5K 3L7, (CA)
Machan, Lindsay S., 2529B Point Grey Rd., Vancouver B.C. V6K 1A1, (CA)
Arsenault, Larry A., RR1, Paris, Ontario N3L 3E1, (CA)
LEGAL REPRESENTATIVE:
Gowshall, Jonathan Vallance (61531), FORRESTER & BOEHMERT Franz-Joseph-Strasse 38, 80801 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 797988 A2 971001 (Basic)
EP 797988 A3 001122
APPLICATION (CC, No, Date): EP 96119361 940719;
PRIORITY (CC, No, Date): US 94536 930719
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC;

NL; PT; SE
RELATED PARENT NUMBER(S) - PN (AN):
EP 706376 (EP 94920360)
INTERNATIONAL PATENT CLASS: A61K-009/16; A61K-009/70; A61L-031/00; A61K-031/20; A61K-031/335; A61K-038/57

ABSTRACT EP 797988 A2
The present invention provides compositions comprising an anti-angiogenic factor, and a polymeric carrier. Representative examples of anti-angiogenic factors include Anti-Invasive Factor, Retinoic acids and derivatives thereof, and taxol. Also provided are methods for embolizing blood vessels, and eliminating biliary, urethral, esophageal, and tracheal/bronchial obstructions.
ABSTRACT WORD COUNT: 45
NOTE:
Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9709W4	528
SPEC A	(English)	9709W4	28275
Total word count - document A			28803
Total word count - document B			0
Total word count - documents A + B			28803

5/3,AB/9 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00680652
ANTI-ANGIOGENIC COMPOSITIONS AND METHODS OF USE
ANTI-ANGIOGENE MITTEL UND VERFAHREN ZU DEREN VERWENDUNG
COMPOSITIONS ANTI-ANGIOGENIQUES ET LEURS PROCEDES D'UTILISATION
PATENT ASSIGNEE:
Angiotech Pharmaceuticals, Inc., (1910122), Suite 2120 Oceanic Plaza, 1066 West Hastings Street, Vancouver, British Columbia V6E 3X1, (CA), (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IE;IT;LI;LU;MC;NL;PT;SE)
THE UNIVERSITY OF BRITISH COLUMBIA, (917325), Office of Research Services and Industry Liaison, Room 331, I.R.C. Building, 2194 Health Sciences Mall, Vancouver, British Columbia V6T 1Z3, (CA), (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IE;IT;LI;LU;MC;NL;PT;SE)
INVENTOR:
BURT, Helen, M., 240 East 40th Avenue, Vancouver, British Columbia V5W 1L8, (CA)
HUNTER, William, L., 525 North Penticton Street, Vancouver, British

Columbia V5K 3L7, (CA)
MACHAN, Lindsay, S., 2529B Point Grey Road, Vancouver, British Columbia V6K 1A1, (CA)
ARSENAULT, A., Larry, RR 1, Paris, Ontario N3L 3E1, (CA)
JACKSON, John, K., 4001 West 33rd Avenue, Vancouver, British Columbia V6N 2HN, (CA)
LEGAL REPRESENTATIVE:
Gowshall, Jonathan Vallance et al (61531), FORRESTER & BOEHMERT Franz-Joseph-Strasse 38, 80801 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 706376 A1 960417 (Basic)
EP 706376 B1 970625
WO 9503036 950202
APPLICATION (CC, No, Date): EP 94920360 940719; WO 94CA373 940719
PRIORITY (CC, No, Date): US 94536 930719
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: A61K-009/16; A61K-009/70; A61L-031/00; A61K-031/20; A61K-031/335; A61K-038/57;
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPAB97	463
CLAIMS B	(German)	EPAB97	460
CLAIMS B	(French)	EPAB97	497
SPEC B	(English)	EPAB97	28238
Total word count - document A			0
Total word count - document B			29658
Total word count - documents A + B			29658

Set	Items	Description
S6	386	(S1 OR S2 OR S3) AND ANTIGEN? ?
S7	1	S6 AND PERTUSIS misspelled, see ✓ S9
S8	1	S7 NOT S4

>>>No matching display code(s) found in file(s): 65, 113

8/3,AB/1 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal

12063870 PASCAL No.: 95-0263804
Adjunvanticity and protective immunity elicited by Bordetella pertussis *antigens"** encapsulated in *poly"**(*DL"**-*lactide"**-CO-*glycolide"**) microspheres
SHAHIN R; LEEF M; ELDRIDGE J; HUDSON M; GILLEY R
Cent. biologics evaluation res. food drug administration, lab. pertussis, Bethesda MD, USA; Univ. Alabama, Birmingham, USA; Southern res. inst.,

Birmingham AL, USA
Journal: Infection and immunity, 1995, 63 (4) 1195-1200
Language: English

Purified Bordetella *pertusis"** *antigens"** , encapsulated in biodegradable *poly"**(*DL"**-*lactide"**-co-*glycolide"**) (DL-*PLG"**) microspheres, were evaluated for their immunogenicity and ability to elicit a protective immune response against B. pertussis respiratory infection. Microencapsulated pertussis toxoid, filamentous hemagglutinin, and pertactin all retained their immunogenicity when administered parenterally. Intranasal immunization with a low dose (1 mu g) of encapsulated filamentous hemagglutinin, pertussis toxoid, or pertactin elicited strong specific immunoglobulin G and immunoglobulin A antibody responses in respiratory secretions that were greater in magnitude than the responses elicited by the same doses of unencapsulated *antigen"**. Intranasal immunization with as little as 1 mu g of encapsulated pertussis *antigen"** prior to infection reduced the bacterial recovery by 3 log SUB 1 SUB 0 CFU. However, intranasal immunization with the same low doses of unencapsulated *antigens"** did not reduce infection. Intranasal administration of a combination of 1 mu g of each of the microencapsulated pertussis *antigens"** was more effective in reducing bacterial infection than administration of any single microencapsulated *antigen"**. Intranasal administration of microencapsulated B. pertussis *antigens"** elicits high levels of specific antibody coinciding with protection against infection when these microspheres are administered to the respiratory tract. These data provide evidence of the respiratory adjuvanticity of three different DL-PLG microsphere preparations, each of which contains a unique B. pertussis *antigen"**

Set	Items	Description
S9	27	S6 AND PERTUSSIS
S10	24	S9 NOT (S4 OR S7)
S11	18	RD (unique items)

>>>No matching display code(s) found in file(s): 65, 113

11/3,AB/1 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal

12505309 PASCAL No.: 96-0175583
Poly(lactide-co-glycolide) microencapsulation of vaccine *antigens"**
New approaches to vaccine development
JONES D H; MCBRIDE B W; FARRAR G H
LUBITZ Werner, ed
Cent. applied microbiology res., microbial antigens dep., exp. vaccines sect., Salisbury Wilts. SP4 0JG, United Kingdom
Univ. Vienna, sect. microbiology biotechnology, inst. microbiology genetics, 1030 Vienna, Austria
NAVD '95. Symposium (Vienna AUT) 1995-04-11

Journal: Journal of biotechnology, 1996, 44 (1-3) 29-36
Language: English
Fimbriae from Bordetella *pertussis"** have been encapsulated in poly(*lactide"**-co-glycolide) (*PLG"**) microspheres of a size appropriate for oral administration. The binding of antibodies which react with conformational or linear fimbrial epitopes, to fimbriae released from microspheres, suggested that the process of microencapsulation was not detrimental to the native integrity of the protein. Mice were immunised by oral gavage with a single dose of microencapsulated fimbriae, or with fimbriae adsorbed onto alhydrogel and administered by intraperitoneal injection. The resulting immune responses in serum were comparable but only oral administration of microencapsulated fimbriae elicited specific immune responses in external secretions. Six weeks after immunisation, both groups of immunised animals were protected against challenge with live B. *pertussis"**.

11/3,AB/2 (Item 1 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

10076286 GENUINE ARTICLE#: 147AE NUMBER OF REFERENCES: 89
TITLE: The preparation and characterization of polymeric *antigen"** delivery systems for oral administration
AUTHOR(S): Singh M (REPRINT); O'Hagan D
AUTHOR(S) E-MAIL: manmohan singh@cc.chiron.com
CORPORATE SOURCE: Chiron Corp, Adjuvant Res Div, 4560 Horton St/Emeryville//CA/94608 (REPRINT); Chiron Corp, Adjuvant Res Div, /Emeryville//CA/94608
PUBLICATION TYPE: JOURNAL
PUBLICATION: ADVANCED DRUG DELIVERY REVIEWS, 1998, V34, N2-3 (DEC 1), P 285-304
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
ISSN: 0169-409X
LANGUAGE: English DOCUMENT TYPE: REVIEW
ABSTRACT: Although polymeric delivery systems are well established for the oral administration of conventional drugs, they have not yet been commercially developed for vaccine delivery. The problems inherent with the oral route of delivery, including low pH, gastric enzymes, rapid transit and poor absorption of large molecules, has made the goal of oral delivery of *antigens"** very challenging. Nevertheless, several polymeric delivery systems for the oral administration of vaccines are currently being evaluated, including microencapsulation in poly(lactide-co-glycolides), alginates, polyanhydrides, starch, polymethacrylates, polyamino acids and enteric coating polymers. These approaches are designed to protect the *antigen"** in the gut, to target the *antigen"** to the gut-associated lymphoid tissue, or to increase the residence time of the *antigen"** in the gut through

bioadhesion. Each of these approaches is discussed in relation to *antigen"** encapsulation and integrity, process reproducibility, ease of preparation and encapsulation efficiency. Potential problems associated with the scale-up of these approaches are also briefly addressed. Of particular relevance are the prospects for the application of these formulation processes for commercial development.

11/3,AB/3 (Item 2 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

09490864 GENUINE ARTICLE#: ZP179 NUMBER OF REFERENCES: 31
TITLE: Comparison of the immunological and protective responses elicited by microencapsulated formulations of the F1 *antigen"** from Yersinia pestis
AUTHOR(S): Reddin KM (REPRINT); Easterbrook TJ; Eley SM; Russell P; Mobsby VA; Jones DH; Farrar GH; Williamson ED; Robinson A
CORPORATE SOURCE: PUBL HLTH LAB SERV,CTR APPL MICROBIOL & RES/SALISBURY SP4 0JG/WILTS/ENGLAND/ (REPRINT); CHEM & BIOL DEF ESTAB,/SALISBURY SP4 0JG/WILTS/ENGLAND/
PUBLICATION TYPE: JOURNAL
PUBLICATION: VACCINE, 1998, V16, N8 (MAY), P761-767
PUBLISHER: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND
ISSN: 0264-410X
LANGUAGE: English DOCUMENT TYPE: ARTICLE
ABSTRACT: Purified native F1 *antigen"** from Yersinia pestis was used to assess controlled-release vaccine delivery systems in poly(*lactide"** -co-glycolide) (*PLG"**) microparticles and liposomes. *Antigen"** encapsulated in *PLG"** microparticles induced high serum titres when injected i.p. in mice: mucosal IgA was also detected. Mice immunized with F1 in Alhydrogel or PLGs were protected against subcutaneous challenge with Y. pestis. F1 *antigen"** surface-labelled onto liposome vesicles stimulated high serum titres in Balb/c mice and also induced a mucosal response: F1-labelled liposomes protected mice against challenge with up to 1 x 10(5) organisms. These findings indicate that a significant immune response is induced by immunizing with F1 formulated in PLGs and liposomes and that protection was achieved after only one dose.

11/3,AB/4 (Item 3 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

06544359 GENUINE ARTICLE#: RG404 NUMBER OF REFERENCES: 29

TITLE: PROTECTION OF MICE FROM BORDETELLA *PERTUSSIS"** RESPIRATORY INFECTION USING MICROENCAPSULATED *PERTUSSIS"** FIMBRIAE
AUTHOR(S): JONES DH; MCBRIDE BW; JEFFERY H; OHAGAN DT; ROBINSON A; FARRAR GH
CORPORATE SOURCE: PUBL HLTH LAB SERV,CTR APPL MICROBIOL & RES,DEPT MICROBIAL ANTIGENS,DIV RES/SALISBURY SP4 0JG/WILTS/ENGLAND/ (Reprint); UNIV NOTTINGHAM,DEPT PHARMACEUT SCI/NOTTINGHAM NG7 2RD//ENGLAND/
PUBLICATION: VACCINE, 1995, V13, N7 (MAY), P675-681
ISSN: 0264-410X
LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE
ABSTRACT: Conditions have been established which allow the efficient entrapment of Bordetella *pertussis"** fimbriae in poly(lactide-co-glycolide) microspheres. Fimbriae released from the matrix were found to have retained some degree of conformational structure, as determined by assessing the capacity of fimbrial protein to bind to antibodies mapping to either conformational or denatured structures on the fimbriae. Following a single intraperitoneal injection, equivalent amounts of fimbriae, either encapsulated in microspheres with a mean diameter of 24 mu m and an estimated in vitro protein release rate of approximately 42 days, or conventionally adjuvanted with alhydrogel, elicited vigorous immune responses in mice. The encapsulated fimbriae appear to elicit marginally lower serum antibody levels than those induced by equivalent amounts of alhydrogel adjuvanted fimbriae. Mice immunised with both preparations were, however, protected against intranasal infection with live B. *pertussis"** as evidenced by the significant reduction in levels of bacterial colonisation observed in the lungs and tracheas of immunised animals when compared to the immunologically naive controls.

11/3,AB/5 (Item 4 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

06272715 GENUINE ARTICLE#: QP134 NUMBER OF REFERENCES: 32
TITLE: ADJUVANTICITY AND PROTECTIVE IMMUNITY ELICITED BY BORDETELLA *PERTUSSIS"** *ANTIGENS"** ENCAPSULATED IN *POLY"**(*DL"**-*LACTIDE"** -CO-*GLYCOLIDE"**) MICROSPHERES
AUTHOR(S): SHAHIN R; LEEF M; ELDRIDGE J; HUDSON M; GILLEY R
CORPORATE SOURCE: US FDA,CBER,PERTUSSIS LAB,HFM-434,BLDG 29,ROOM 414,29 LINCOLN DR MSC 4555/BETHESDA//MD/20892 (Reprint); UNIV ALABAMA/BIRMINGHAM//AL/00000; SO RES INST/BIRMINGHAM//AL/35255
PUBLICATION: INFECTION AND IMMUNITY, 1995, V63, N4 (APR), P1195-1200
ISSN: 0019-9567
LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE
ABSTRACT: Purified Bordetella *pertussis"** *antigens"**, encapsulated in biodegradable *poly"**(*DL"**-*lactide"**-co-*glycolide"**) (DL-*PLG"**) microspheres, were evaluated for their immunogenicity and ability to

elicit a protective immune response against B. *pertussis"** respiratory infection, Microencapsulated *pertussis"** toroid, filamentous hemagglutinin, and pertactin all retained their immunogenicity when administered parenterally, Intranasal immunization with a low dose (1 mu g) of encapsulated filamentous hemagglutinin, *pertussis"** toroid, or pertactin elicited strong specific immunoglobulin G and immunoglobulin A antibody responses in respiratory secretions that were greater in magnitude than the responses elicited by the same doses of unencapsulated *antigen"**. Intranasal immunization with as little as 1 mu g of encapsulated *pertussis"** *antigen"** prior to infection reduced the bacterial recovery by 3 log(10) CFU. However, intranasal immunization with the same low doses of unencapsulated *antigens"** did not reduce infection. Intranasal administration of a combination of 1 mu g of each of the microencapsulated *pertussis"** *antigens"** was more effective in reducing bacterial infection than administration of any single microencapsulated *antigen"**, Intranasal administration of microencapsulated B. *pertussis"** *antigens"** elicits high levels of specific antibody coinciding with protection against infection when these microspheres are administered to the respiratory tract, These data provide evidence of the respiratory adjuvanticity of three different DL-PLG microsphere preparations, each of which contains a unique B. *pertussis"** *antigen"**,

11/3,AB/6 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01264831
Polymers loaded with bioactive agents
Mit bioaktiven Mitteln beladene Polymeren
Polymeres charges avec des agents bioactifs
PATENT ASSIGNEE:
IsoTis N.V., (3145730), Prof. Bronkhorstlaan 10, 3723 MB Bilthoven, (NL)
, (Applicant designated States: all)
INVENTOR:
Bezemer, Jeroen Mattijs, Milosdreef 51, 3562 VG Utrecht, (NL)
Feijen, Jan, Oude Grensweg 96, 7552 GD Hengelo, (NL)
van Blitterswijk, Clemens Antoni, Hekendorpse Buurt 2, 3467 PD Hekendorp
, (NL)
Grijpma, Dirk Wybe, Bonteweverij 128, 7511 RK Enschede, (NL)
LEGAL REPRESENTATIVE:
Prins, Adrianus Willem et al (20903), Vereenigde, Nieuwe Parklaan 97,
2587 BN Den Haag, (NL)
PATENT (CC, No, Kind, Date): EP 1090928 A1 010411 (Basic)
APPLICATION (CC, No, Date): EP 203388 000928;
PRIORITY (CC, No, Date): EP 99203195 990930

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: C07K-017/04; A61K-009/70; C12N-005/00; A61L-027/00

ABSTRACT EP 1090928 A1
The invention relates to a process for loading a polymer with one or more bioactive agents, using a wet spinning technique. The invention further relates to a polymer loadced with one or more bioactive agents, obtainable by said process and to the use thereof as a carrier for controlled drug release or as scaffold for tissue engineering.
ABSTRACT WORD COUNT: 58
NOTE:
Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200115	402
SPEC A	(English)	200115	5848
Total word count - document A			6250
Total word count - document B			0
Total word count - documents A + B			6250

11/3,AB/7 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01101398
Microencapsulated DNA for gene therapy
Mikroverkapselte DNA zur Gentherapie
ADN microencapsule s'appliquant dans des procedes de therapie genique
PATENT ASSIGNEE:
MICROBIOLOGICAL RESEARCH AUTHORITY, (1820460), Centre for Applied Microbiology and Research, Porton Down, Salisbury, Wiltshire SP4 0JG, (GB), (Applicant designated States: all)
INVENTOR:
Farar, Graham Henry, Parkwater, Whiteparish, Salisbury, Wiltshire SP5 2QR , (GB)
Jones, David Hugh, Microbiol.Research Authority, Centre for Applied Microbiology and Research, Porton Down, Salisbury, Wilts. SP4 0JG, (GB)
Clegg, James Christopher Stephen, Microbiol.Res., Aut., Centre for Applied Microbiology and Research, Porton Down, Salisbury, Wilts. SP4 0JG, (GB)
LEGAL REPRESENTATIVE:
Schlich, George William et al (75591), Mathys & Squire 100 Gray's Inn

Road, London WC1X 8AL, (GB)
PATENT (CC, No, Kind, Date): EP 965336 A1 991222 (Basic)
APPLICATION (CC, No, Date): EP 99113415 961111;
PRIORITY (CC, No, Date): GB 9523019 951109; GB 9601929 960131
DESIGNATED STATES: AT; BE; CH; DE; DK; FR; GB; IT; LI; NL; SE
EXTENDED DESIGNATED STATES: AL; LT; LV; RO; SI
RELATED PARENT NUMBER(S) - PN (AN):
EP 862419 (EP 96938326)
INTERNATIONAL PATENT CLASS: A61K-009/16; A61K-009/00; A61K-039/15; A61K-039/165; A61K-048/00

ABSTRACT EP 965336 A1
A microparticle contains DNA coding for a non-immunogenic gene product and oral administration of the microparticle leads to its expression. DNA coding for a non-immunogenic gene product is for gene therapy applications. DNA is incorporated into the microparticle without destruction of its function.
ABSTRACT WORD COUNT: 44
NOTE:
Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	199951	552
SPEC A	(English)	199951	6622
Total word count - document A			7174
Total word count - document B			0
Total word count - documents A + B			7174

11/3,AB/8 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00910585
Polyetheresters copolymers as drug delivery matrices
Polyetherester-Copolymere als Matrixmaterialien fur die Arzneistoffabgabe
Copolymeres de polyetheresters comme matrice pour la delivrance de medicaments
PATENT ASSIGNEE:
Osteotech, Inc.,, (1118232), 51 James Way, Eatontown, NJ 07724, (US),
(applicant designated states:
AT;BE;CH;DE;DK;ES;FI;FR;GB;GR;IE;IT;LI;LU;MC;NL;PT;SE)
INVENTOR:
Goedemoed, Jacob Hillebrand, Frans van Mierisstraat 129-2, 1071 RR Amsterdam, (NL)
Hennink, Wilhelmus Everhardus, Zuidplaslaan 120, 2743 CZ Waddinxveen,

(NL)
Bezemer, Jeroen Mattijs, Pieter Breughelstraat 97, 7556 ZK Hengelo, (NL)
Feijen, Jan, Oude Grensweg 96, 7552 GD Hengelo, (NL)
Van Blitterswijk, Clemens Antoni, Hekendorpsebuurt 2, 3467 PD Hekendorp, (NL)
De Bruijn, Joost Dick, Laan van Meerdervoort 67, 2517 AG Den Haag, (NL)
LEGAL REPRESENTATIVE:
de Bruijn, Leendert C. et al (19641), Nederlandsch Octrooibureau P.O. Box 29720, 2502 LS Den Haag, (NL)
PATENT (CC, No, Kind, Date): EP 830859 A2 980325 (Basic)
EP 830859 A3 980722
APPLICATION (CC, No, Date): EP 97202533 970818;
PRIORITY (CC, No, Date): US 699896 960816
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: A61K-009/16

ABSTRACT EP 830859 A2
A composition for delivering a biologically active agent to a host. The composition comprises a product including a biologically active agent encapsulated in a matrix comprising a copolymer, of a polyalkylene glycol and an aromatic polyester, such as a polyethylene glycol terephthalate/polybutylene terephthalate copolymer. The polyether-ester copolymer protects the biologically active agent (including proteins, peptides, and small drug molecules) from degradation or denaturation and provides and essentially zero-order release.
ABSTRACT WORD COUNT: 70

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9813	474
SPEC A	(English)	9813	17399
Total word count - document A			17873
Total word count - document B			0
Total word count - documents A + B			17873

11/3,AB/9 (Item 4 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00859896
MICROENCAPSULATED DNA FOR VACCINATION AND GENE THERAPY
MIKROVERKAPSELTE DNA ZUR IMPFUNG UND GENTHERAPIE
ADN MICROENCAPSULE S'APPLIQUANT DANS DES PROCEDES DE VACCINATION ET DE THERAPIE GENIQUE
PATENT ASSIGNEE:

MICROBIOLOGICAL RESEARCH AUTHORITY, (1820460), Centre for Applied Microbiology and Research, Porton Down, Salisbury, Wiltshire SP4 0JG, (GB), (Proprietor designated states: all)
INVENTOR:
FARRAR, Graham Henry, Microbiol. Res. AuthorityCAMuR, Porton Down, Salisbury, Wiltshire SP4 0JG, (GB)
JONES, David Hugh, Microbiol. Res. Authority CAMR, Porton Down, Salisbury, Wiltshire SP4 0JG, (GB)
CLEGG, James Christopher Stephen, Microbiol. Res. Authority CAMR, Porton Down, Salisbury, Wiltshire SP4 0JG, (GB)
LEGAL REPRESENTATIVE:
Schlich, George William et al (75591), Mathys & Squire European Patent Attorneys, 100 Gray's Inn Road, London WC1X 8AL, (GB)
PATENT (CC, No, Kind, Date): EP 862419 A1 980909 (Basic)
EP 862419 B1 000503
WO 9717063 970515
APPLICATION (CC, No, Date): EP 96938326 961111; WO 96GB2770 961111
PRIORITY (CC, No, Date): GB 9523019 951109; GB 9601929 960131
DESIGNATED STATES: AT; BE; CH; DE; DK; FR; GB; IT; LI; NL; SE
RELATED DIVISIONAL NUMBER(S) - PN (AN):
EP 965336 (EP 99113415)
INTERNATIONAL PATENT CLASS: A61K-009/16; A61K-009/00; A61K-039/15; A61K-039/165; A61K-048/00
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200018	1247
CLAIMS B	(German)	200018	1326
CLAIMS B	(French)	200018	1354
SPEC B	(English)	200018	6623
Total word count - document A			0
Total word count - document B			10550
Total word count - documents A + B			10550

11/3,AB/10 (Item 5 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00791235
Single-shot vaccine formulation
Impfstofformulierung fur einmalige Anwendung
Formulation de vaccin pour une administration unique
PATENT ASSIGNEE:
LG Chemical Limited, (1983550), 20, Yoido-dong, Yongdungpo-gu, Seoul 150-721, (KR), (applicant designated states:

AT;BE;CH;DE;DK;ES;FI;FR;GB;GR;IE;IT;LI;LU;MC;NL;PT;SE)
INVENTOR:
Lee, Hyeon-Kook, Hana Apt. 102-1302, No. 153-1, Shinsung-dong, Yuseong-gu, Daejeon 305-345, (KR)
Park, Jung-Hwan, Doore Apt. 102-505, No. 152-1, Shinsung-dong, Yuseong-gu, Daejeon 305-345, (KR)
Choi, Nam-Sok, Hanshin 7th Apt. 303-705, No. 130-17, Jamwon-dong, Seocho-gu, Seoul 137-030, (KR)
Kim, Myung-Jin, LG Apt. 9-502, No. 381-42, Doryong-dong, Yuseong-gu, Daejeon 305-340, (KR)
Kim, Soo-Hyeon, LG Apt. 5-506, No. 381-42, Doryong-dong, Yuseong-gu, Daejeon 305-340, (KR)
LEGAL REPRESENTATIVE:
Turi, Michael, Dipl.-Phys. et al (59052), Samson & Partner Widenmayerstrasse 5, 80538 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 737472 A1 961016 (Basic)
APPLICATION (CC, No, Date): EP 96104177 960315;
PRIORITY (CC, No, Date): KR 955424 950316
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: A61K-009/16; A61K-009/50;

ABSTRACT EP 737472 A1
A microparticle having a particle size ranging from 0.5 to 300 (mu)m, which is prepared by coating an *antigen"** or a mixture of *antigens"** with a water-soluble substance to obtain a core particle and coating the core particle with a biodegradable polymer; and a single-shot vaccine formulation prepared by dispersing the microparticles in an injection medium. (see image in original document)
ABSTRACT WORD COUNT: 75

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPAB96	455
SPEC A	(English)	EPAB96	5804
Total word count - document A			6259
Total word count - document B			0
Total word count - documents A + B			6259

11/3,AB/11 (Item 6 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00750372
Method of potentiating an immune response and compositions therefor
Verfahren zur Potenzierung einer Immunantwort sowie die dazugehorigen

Mittel
Procede de potentialisation d'une reponse immunitaire et les compositions correspondantes
PATENT ASSIGNEE:
THE UAB RESEARCH FOUNDATION, (978760), University Station, P.O. Box 1000, Birmingham Alabama 35294, (US), (applicant designated states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)
SOUTHERN RESEARCH INSTITUTE, (225411), 2000 Ninth Avenue, South P.O. Box 5305, Birmingham Alabama 35255-5305, (US), (applicant designated states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)
INVENTOR:
Tice, Thomas T., 1915 Forest River Court, Shelby County, Birmingham, Alabama 35244, (US)
Eldridge, John H., 2335 Deerwood Road, Jefferson County, Birmingham, Alabama 35120, (US)
Gilley, Richard M., 4020 Royal Oak Circle, Jefferson County, Birmingham, Alabama 35243, (US)
Stass, Jay K., 5079 Darlene Drive, Jefferson County, Birmingham, Alabama 35120, (US)
LEGAL REPRESENTATIVE:
Leissler-Gerstl, Gabriele et al (55114), Winzererstrasse 48, 80797 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 706792 A1 960417 (Basic)
APPLICATION (CC, No, Date): EP 95112851 890320;
PRIORITY (CC, No, Date): US 169973 880318
DESIGNATED STATES: AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LU; NL; SE
RELATED PARENT NUMBER(S) - PN (AN):
EP 333523 (EP 893027466)
INTERNATIONAL PATENT CLASS: A61K-009/50; A61K-039/00;

ABSTRACT EP 706792 A1
A method, and compositions for use therein capable, of delivering a bioactive agent to an animal entailing the steps of encapsulating effective amounts of the agent in a biocompatible excipient to form microcapsules having a size less than approximately ten micrometers and administering effective amounts of the microcapsules to the animal. A pulsatile response is obtained, as well as mucosal and systemic immunity.
ABSTRACT WORD COUNT: 77
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPAB96	2539
SPEC A	(English)	EPAB96	13858
Total word count - document A			16397
Total word count - document B			0
Total word count - documents A + B			16397

11/3,AB/12 (Item 7 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00692842
HYDROPHOBIC POLYMERIC MICROPARTICLES
HYDROPHOBE POLYMER MIKROPARTIKEL
MICROPARTICULES DE POLYMERES HYDROPHOBES
PATENT ASSIGNEE:
VIRUS RESEARCH INSTITUTE, (1754331), 61 Moulton Street,, Cambridge, MA 02139, (US), (Proprietor designated states: all)
MASSACHUSETTS INSTITUTE OF TECHNOLOGY, (210190), 77 Massachusetts Avenue, Cambridge, MA 02139, (US), (Proprietor designated states: all)
INVENTOR:
ANDRIANOV, Alexander, K., 108 Pine Street, Belmont, MA 02178, (US)
LANGER, Robert, S., 77 Lombard Street, Newton, MA 02158, (US)
LEGAL REPRESENTATIVE:
Bassett, Richard Simon et al (52833), Eric Potter Clarkson, Park View House, 58 The Ropewalk, Nottingham NG1 5DD, (GB)
PATENT (CC, No, Kind, Date): EP 720471 A1 960710 (Basic)
EP 720471 B1 010418
WO 9508320 950330
APPLICATION (CC, No, Date): EP 94928640 940921; WO 94US10692 940921
PRIORITY (CC, No, Date): US 124816 930921
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: A61K-009/16
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200116	553
CLAIMS B	(German)	200116	526
CLAIMS B	(French)	200116	649
SPEC B	(English)	200116	5102
Total word count - document A			0
Total word count - document B			6830
Total word count - documents A + B			6830

11/3,AB/13 (Item 8 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00649617
A dosage form comprising an *antigen"** and a salt form of an organic acid

derivative of a sterol
Dosierungsform die ein *Antigen"** und eine Salzform eines organischen Saurederivats eines Sterols enthalt
Forme de dosage comprenant un *antigene"** et un sel d'un derive organoacide d'un sterol
PATENT ASSIGNEE:
THE LIPOSOME COMPANY, INC., (536921), One Research Way Princeton Forrestal Center, Princeton, NJ 08540, (US), (applicant designated states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)
INVENTOR:
Popescu, Mircea C., 5 Parkway Avenue, Plainsboro, New Jersey 08536, (US)
Recine, Marie S., 19 Hoffman Drive, Hamilton Twp., New Jersey 08690, (US)
Alving, Carl L., 3 Newbold Court, Bethesday, Maryland 20817, (US)
Estis, Leonard F., 56 Grafton Road, Upton, Massachusetts 01568, (US)
Keyes, Lynn D., 56 Grafton Road, Upton, Massachusetts 01568, (US)
Janoff, Andrew S., 1807 South Crescent Boulevard, Yardley, Pennsylvania 19067, (US)
LEGAL REPRESENTATIVE:
Warcoin, Jacques et al (19071), Cabinet Regimbeau, 26, avenue Kleber, 75116 Paris, (FR)
PATENT (CC, No, Kind, Date): EP 626169 A2 941130 (Basic)
EP 626169 A3 951213
EP 626169 B1 990714
APPLICATION (CC, No, Date): EP 94201844 890825;
PRIORITY (CC, No, Date): US 236701 880825; US 236702 880825; US 397777 890823
DESIGNATED STATES: AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LU; NL; SE
RELATED PARENT NUMBER(S) - PN (AN):
EP 356339 (EP 894023431)
INTERNATIONAL PATENT CLASS: A61K-039/145; A61K-009/127; A61K-039/39;

ABSTRACT EP 626169 A2
An influenza immunizing dosage form comprising a liposome and an *antigen"** of Influenza, particularly the hemagglutinin or bromelain fragment, wherein said liposome and *antigen"** are present in an immunization dose. Additionally, a dosage form, including such form particularly adapted to producing an immune response, comprising a salt form of an organic acid derivative of a sterol and an *antigen"** wherein said organic acid derivative of a sterol and *antigen"** are present in an immunization dose, and method of use. Further, a dosage form, including such form particularly adapted to producing an immune response, comprising dimyristolyphosphatidylcholine (DMPC)/cholesterol liposomes, optionally in an aluminum hydroxide gel, and an *antigen"** wherein said DMPC/cholesterol and *antigen"** are present in an immunization dose, and method of use.
ABSTRACT WORD COUNT: 123

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9928	407
CLAIMS B	(German)	9928	350
CLAIMS B	(French)	9928	498
SPEC B	(English)	9928	9475
Total word count - document A			0
Total word count - document B			10730
Total word count - documents A + B			10730

11/3,AB/14 (Item 9 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00448819
ENCAPSULATION PROCESS
EINKAPSELUNGSVERFAHREN
PROCEDE D'ENCAPSULATION
PATENT ASSIGNEE:
Southern Research Institute, (225410), 2000 Ninth Avenue South, Birmingham Alabama 35205, (US), (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;IT;LI;LU;NL;SE)
INVENTOR:
TICE, Thomas, R., 1915 Forest River Court, Birmingham, AL 35244, (US)
GILLEY, Richard, M., 4020 Royal Oak Circle, Birmingham, AL 35120, (US)
LEGAL REPRESENTATIVE:
Leissler-Gerstl, Gabriele (55115), Eisenfuhr, Speiser & Partner, Patentanwalte, Arnulfstrasse 25, 80335 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 471036 A1 920219 (Basic)
EP 471036 A1 920318
EP 471036 B1 960117
WO 9013361 901115
APPLICATION (CC, No, Date): EP 90908830 900502; WO 90US2439 900502
PRIORITY (CC, No, Date): US 347476 890504
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: B01J-013/12; A61K-009/58; A61K-009/52;
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPAB96	1294
CLAIMS B	(German)	EPAB96	1248
CLAIMS B	(French)	EPAB96	1404
SPEC B	(English)	EPAB96	5378
Total word count - document A			0
Total word count - document B			9324

Total word count - documents A + B 9324

11/3,AB/15 (Item 10 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00375819
Influenza vaccine and novel adjuvants.
Influenzaimpfstoff und Adjuvanten.
Vaccin contre l'influenza et adjuvants.
PATENT ASSIGNEE:
THE LIPOSOME COMPANY, INC., (536921), One Research Way Princeton Forrestal Center, Princeton, NJ 08540, (US), (applicant designated states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)
INVENTOR:
Popescu, Mircea C., 5 Parkway Avenue, Plainsboro, NJ 08536, (US)
Recine, Marie S., 19 Hoffman Drive, Hamilton Twp., NJ 08690, (US)
Alving, Carl L., 3 Newbold Court, Bethesda, MD 20817, (US)
Estis, Leonard F., 56 Grafton Road, Upton, MA 01568, (US)
Keyes, Lynn D., 56 Grafton Road, Upton, MA 01568, (US)
Janoff, Andrew S., 1807 South Crescent Boulevard, Yardley, PA 19067, (US)
LEGAL REPRESENTATIVE:
Martin, Jean-Jacques et al (17181), Cabinet REGIMBEAU 26, Avenue Kleber, F-75116 Paris, (FR)
PATENT (CC, No, Kind, Date): EP 356339 A1 900228 (Basic)
EP 356339 B1 950301
APPLICATION (CC, No, Date): EP 89402343 890825;
PRIORITY (CC, No, Date): US 236701 880825; US 236702 880825; US 397777 890823
DESIGNATED STATES: AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: A61K-009/50; A61K-039/145;

ABSTRACT EP 356339 A1
An influenza immunizing dosage form comprising a liposome and an *antigen"** of Influenza, particularly the hemagglutinin or bromelain fragment, wherein said liposome and *antigen"** are present in an immunization dose. Additionally, a dosage form, including such form particularly adapted to producing an immune response, comprising a salt form of an organic acid derivative of a sterol and an *antigen"** wherein said organic acid derivative of a sterol and *antigen"** are present in an immunization dose, and method of use. Further, a dosage form, including such form particularly adapted to producing an immune response, comprising dimyristolyphosphatidylcholine (DMPC)/cholesterol liposomes, optionally in an aluminum hydroxide gel, and an *antigen"** wherein said DMPC/cholesterol and *antigen"** are present in an immunization dose, and method of use.
ABSTRACT WORD COUNT: 125

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	723
CLAIMS B	(English)	EPAB95	782
CLAIMS B	(German)	EPAB95	719
CLAIMS B	(French)	EPAB95	961
SPEC A	(English)	EPABF1	9658
SPEC B	(English)	EPAB95	8056
Total word count - document A			10381
Total word count - document B			10518
Total word count - documents A + B			20899

11/3,AB/16 (Item 11 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00363033
Method of potentiating an immune response and compositions therefor
Verfahren zur Potenzierung einer Immunreaktion sowie die dazugehorigen Mittel
Procede de potentialisation d'une reaction immunitaire et les compositions correspondantes
PATENT ASSIGNEE:
THE UAB RESEARCH FOUNDATION, (978760), University Station, P.O. Box 1000, Birmingham Alabama 35294, (US), (applicant designated states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)
SOUTHERN RESEARCH INSTITUTE, (225411), 2000 Ninth Avenue, South P.O. Box 5305, Birmingham Alabama 35255-5305, (US), (applicant designated states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)
INVENTOR:
Tice, Thomas T., 1915 Forest River Court, Shelby County, Birmingham Alabama 35244, (US)
Eldridge, John H., 2335 Deerwood Road, Jefferson County, Birmingham Alabama 35120, (US)
Gilley, Richard M., 4020 Royal Oak Circle, Jefferson County, Birmingham, Alabama 35243, (US)
Stass, Jay K, 5079 Darlene Drive, Jefferson County Birmingham Alabama, (US)
LEGAL REPRESENTATIVE:
Leissler-Gerstl, Gabriele et al (55114), Winzererstrasse 48, 80797 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 333523 A2 890920 (Basic)
EP 333523 A3 900131
EP 333523 B1 960717
APPLICATION (CC, No, Date): EP 89302746 890320;

PRIORITY (CC, No, Date): US 169973 880318
DESIGNATED STATES: AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: A61K-009/50;

ABSTRACT EP 333523 A2
A method, and compositions for use therein capable, of delivering a bioactive agent to an animal entailing the steps of encapsulating effective amounts of the agent in a biocompatible excipient to form microcapsules having a size less than approximately ten micrometers and administering effective amounts of the microcapsules to the animal. A pulsatile response is obtained, as well as mucosal and systemic immunity.

ABSTRACT WORD COUNT: 67
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	1829
CLAIMS B	(English)	EPAB96	2038
CLAIMS B	(German)	EPAB96	2341
CLAIMS B	(French)	EPAB96	2354
SPEC A	(English)	EPABF1	12009
SPEC B	(English)	EPAB96	12276
Total word count - document A			13839
Total word count - document B			19009
Total word count - documents A + B			32848

11/3,AB/17 (Item 12 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00271802
Method and formulation for orally administering bioactive agents to and through the Peyer's patch.
Methode und Zusammensetzung zur oralen Verabreichung von bioaktiven Mitteln zur Peyer's Flecken.
Methode et formulation pour l'administration orale d'agents biologiquement actifs diriges par les taches de Peyer.
PATENT ASSIGNEE:
SOUTHERN RESEARCH INSTITUTE, (225411), 2000 Ninth Avenue, South P.O. Box 5305, Birmingham Alabama 35255-5305, (US), (applicant designated states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)
THE UAB RESEARCH FOUNDATION, (978760), University Station, P.O. Box 1000, Birmingham Alabama 35294, (US), (applicant designated states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)
INVENTOR:
Tice,Thomas R., 1305 Overland Drive, Birmingham,Alabama 35216, (US)
Staas,Jay K., 5079 Darlene Drive, Pinson,Alabama 35126, (US)

Gilley, Richard M., 4020 Royal Oak Circle, Birmingham, Alabama 35243, (US)
Eldridge,John H., 2335 Deerwood Road, Birmingham,Alabama 35216, (US)
LEGAL REPRESENTATIVE:
Leissler-Gerstl, Gabriele (55114), Patentanwaltin, Arnulfstrasse 25, 80335 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 266119 A2 880504 (Basic)
EP 266119 A3 890726
EP 266119 B1 940720
APPLICATION (CC, No, Date): EP 87309286 871021;
PRIORITY (CC, No, Date): US 923159 861024
DESIGNATED STATES: AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: A61K-009/50; A61K-009/56; A61K-009/62;

ABSTRACT EP 266119 A2
A method and formulation for orally administering a bioactive agent which comprises encapsulating the agent in one or more biodegradable and biocompatible polymer or copolymer excipients to form a microcapsule which is capable of passing through the gastrointestinal tract unaffected and being taken up by the Peyer's patch.
ABSTRACT WORD COUNT: 52

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPBBF1	401
CLAIMS B	(English)	EPBBF1	1351
CLAIMS B	(German)	EPBBF1	1239
CLAIMS B	(French)	EPBBF1	1307
SPEC A	(English)	EPBBF1	3438
SPEC B	(English)	EPBBF1	3545
Total word count - document A			3839
Total word count - document B			7442
Total word count - documents A + B			11281

11/3,AB/18 (Item 13 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00222795
Use of indolobenzodiazepines for antagonizing luteinizing hormone releasing hormone.
Verwendung von Indolobenzodiazepinen als Antagonisten des Luteinisierungshormon freimachenden Hormons.
Utilisation des indolobenzodiazepines comme antagonistes de l'hormone liberant l'hormone luteinisante.
PATENT ASSIGNEE:

McNeilab, Inc., (203601), , Springhouse Pennsylvania 19477, (US),
(applicant designated states: AT;BE;CH;DE;FR;GB;IT;LI;LU;NL;SE)
INVENTOR:
Ho, Chih Yung, 600 Drinnon Way, Landsdale Pennsylvania 19446, (US)
LEGAL REPRESENTATIVE:
Jones, Alan John et al , CARPMAELS & RANSFORD 43 Bloomsbury Square,
London, WC1A 2RA, (GB)
PATENT (CC, No, Kind, Date): EP 219292 A2 870422 (Basic)
APPLICATION (CC, No, Date): EP 86307693 861006;
PRIORITY (CC, No, Date): US 784963 851007
DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: A61K-031/55;
ABSTRACT EP 219292 A2

Fused tetracyclic benzodiazepines of the formula (I): (see image in original document) where R(sup 1) is an acyclic amine or cyclic amine such as 1-piperidine, 4-morpholine or 1-piperazine and R(sup 2) is H or a substituent as defined herein are useful as antiallergins. Also, methods for their synthesis, intermediate used in such synthesis, methods for use as medicaments and pharmaceutical compositions.

ABSTRACT WORD COUNT: 65

LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	158
SPEC A	(English)	EPABF1	5181
Total word count - document A			5339
Total word count - document B			0
Total word count - documents A + B			5339

Set	Items	Description
S12	2	AU=(BRAYDEN, D? OR BRAYDEN D?) AND (S1 OR S2 OR S3)
S13	1	S12 NOT (S4 OR S7 OR S10)

Another

13/19/1 (Item 1 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

12279374 GENUINE ARTICLE#: 383JQ
PUBLICATION TYPE: JOURNAL
PUBLICATION: PHARMACEUTICAL RESEARCH, 2000, V17, N10 (OCT)
PUBLISHER: KLUWER ACADEMIC/PLENUM PUBL, 233 SPRING ST, NEW YORK, NY 10013 USA
ISSN: 0724-8741

CURRENT CONTENTS: CC LIFE, V44, N4
JOURNAL SUBJECT: PHARMACOLOGY & TOXICOLOGY;

CONTENTS:

de Boer AG; Breimer DD. Leiden Univ, Dept Pharmacol, POB 9503/NL-2300 RA Leiden//Netherlands/ (REPRINT); Leiden Univ, Dept Pharmacol, /NL-2300 RA Leiden//Netherlands/. English. ARTICLE. 28 REFERENCES. ABSTRACT AVAILABLE

P. 1206-1211. Nuclear transport of oligonucleotides in HepG2-cells mediated by protamine sulfate and negatively charged liposomes. Welz C; Neuhuber W; Schreier H; Metzler M; Repp R; Rascher W; Fahr A. Univ Marburg, Dept Pharmaceut & Biopharm, Ketzerbach 63/D-35032 Marburg//Germany/ (REPRINT); Univ Marburg, Dept Pharmaceut & Biopharm, /D-35032 Marburg//Germany/; Univ Erlangen Nurnberg, Dept Anat, /D-8520 Erlangen//Germany/; Univ Erlangen Nurnberg, Dept Pediat, /D-8520 Erlangen//Germany/. English. ARTICLE. 26 REFERENCES. ABSTRACT AVAILABLE

Section Heading: Drug Targeting

P. 1212-1219. Intravenous Cereport (RMP-7) enhances delivery of hydrophilic chemotherapeutics and increases survival in bats with metastatic tumors in the brain. Emerich DF; Dean RL; Marsh J; Pink M; Lafreniere D; Snodgrass P; Bartus RT. Alkermes Inc, Dept Pharmacol, 64 Sidney St/Cambridge//MA/02139 (REPRINT); Alkermes Inc, Dept Pharmacol, /Cambridge//MA/02139; Tufts Univ, Dept Pharmacol & Expt Therapeut, /Boston//MA/02111. English. ARTICLE. 28 REFERENCES. ABSTRACT AVAILABLE

P. 1220-1227. Pharmacokinetic-pharmacodynamic modelling of morphine transport across the blood-brain barrier as a cause of the antinociceptive effect delay in rats - A microdialysis study. Bouw MR; Gardmark M; Hammarlund-Udenaes M. Univ Uppsala, Dept Pharm, /S-75123 Uppsala//Sweden/ (REPRINT); Univ Uppsala, Dept Pharm, /S-75123 Uppsala//Sweden/; Med Prod Agcy, /Uppsala//Sweden/. English. ARTICLE. 32 REFERENCES. ABSTRACT AVAILABLE

P. 1228-1235. A population analysis of nebulized (R)-albuterol in dogs using a novel mixed gut-lung absorption PK-PD model. Auclair B; Wainer IW; Fried K; Koch P; Jerussi TP; Ducharme MP. MDS Pharma Serv, 2350 Cohen/St Laurent/PQ H4R 2N6/Canada/ (REPRINT); Univ Montreal, Fac Pharm, /Montreal/PQ H3C 3J7/Canada/; Georgetown Univ, /Washington//DC/; Sepracor Pharma, /Marlborough//MA/; MDS Pharma Serv, /Montreal/PQ/Canada/. English. ARTICLE. 34 REFERENCES. ABSTRACT AVAILABLE

P. 1236-1242. Biodistribution of amphotericin B when delivered through cholesterol hemisuccinate vesicles in normal and A-fumigatus infected mice. Saxena S; Ghosh PC. Univ Delhi, Dept Biochem, South Campus,Benito Juarez Rd/New Delhi 110021//India/ (REPRINT); Univ Delhi, Dept Biochem, /New Delhi 110021//India/. English.

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P. 1243-1249. Sciatic nerve blockade with lipid-protein-sugar particles containing bupivacaine. Kohane DS; Lipp M; Kinney RC; Lotan N; Langer R. MIT, Dept Chem Engn, Bldg E-25,Rm 342,77 Main St/Cambridge//MA/02139 (REPRINT); MIT, Dept Chem Engn, /Cambridge//MA/02139; Massachusetts Gen Hosp, Dept Pediat, /Boston//MA/02114; Harvard Univ, Sch Med, /Boston//MA/02115; Technion Israel Inst Technol, Dept Biomed Engn, /Haifa//Israel/. English. ARTICLE. 23 REFERENCES. ABSTRACT AVAILABLE

P. 1250-1258. Niosomes and polymeric chitosan based vesicles bearing transferrin and glucose ligands for drug targeting. Dufes C; Schatzlein AG; Tetley L; Gray AI; Watson DG; Olivier JC; Couet W; Uchegbu IF. Univ Strathclyde, Strathclyde Inst Biomed Sci, 27 Taylor St/Glasgow G4 0NR/Lanark/Scotland/ (REPRINT); Univ Strathclyde, Strathclyde Inst Biomed Sci, /Glasgow G4 0NR/Lanark/Scotland/; Univ Glasgow, Dept Med Oncol, /Glasgow G61 1BD/Lanark/Scotland/; Univ Glasgow, Inst Biomed & Life Sci, /Glasgow G12 8QQ/Lanark/Scotland/; Fac Med & Pharm, Lab Pharm Galen & Biopharm, /F-86000 Poitiers//France/. English. ARTICLE. 30 REFERENCES. ABSTRACT AVAILABLE

P. 1259-1264. Oral delivery of new heparin derivatives in rats. Lee YK; Kim SH; Byun Y. Kwangju Inst Sci & Technol, Puk Gu, 1 Oryong Dong/Kwangju 500712//South Korea/ (REPRINT); Kwangju Inst Sci & Technol, Puk Gu, /Kwangju 500712//South Korea/; Samsung Med Ctr, Dept Clin Pathol, /Seoul 135710//South Korea/. English. ARTICLE. 13 REFERENCES. ABSTRACT AVAILABLE

Section Heading: Drug Delivery

P. 1265-1272. A strategy for primary high throughput cytotoxicity screening in pharmaceutical toxicology. Bugelski PJ; Atif U; Molton S; Toeg I; Lord PG; Morgan DG. SmithKline Beecham Pharmaceut, Safety Assessment, The Frythe/Welwyn Garden City AL6 9AR/Herts/England/ (REPRINT); SmithKline Beecham Pharmaceut, Safety Assessment, /Welwyn Garden City AL6 9AR/Herts/England/; SmithKline Beecham Pharmaceut, Informat Management, /Welwyn Garden City AL6 9AR/Herts/England/. English. ARTICLE. 29 REFERENCES. ABSTRACT AVAILABLE

P. 1273-1277. Rapid non-genomic feedback effects of glucocorticoids on CRF-induced ACTH secretion in rats. Hinz B; Hirschelmann R. Univ Erlangen Nurnberg, Dept Expt & Clin Pharmacol & Toxicol, Fahrstr 17/D-91054 Erlangen//Germany/ (REPRINT); Univ Erlangen Nurnberg, Dept Expt & Clin Pharmacol & Toxicol, /D-91054 Erlangen//Germany/; Univ Halle Wittenberg, Dept Pharmacol & Toxicol, /D-06120 Halle//Germany/. English. ARTICLE. 30 REFERENCES. ABSTRACT

AVAILABLE

Section Heading: Clinical Pharmacology

P. 1278-1283. Confidence interval criteria for assessment of dose proportionality. Smith BP; Vandenhende FR; DeSante KA; Farid NA; Welch PA; Callaghan JT; Forgue ST. Lilly Lab Clin Res, 550 N Univ Blvd/Indianapolis//IN/46202 (REPRINT); Lilly Lab Clin Res, /Indianapolis//IN/46202; Lilly Dev Ctr, /B-1348 Mont St Guibert//Belgium/; Lilly Res Labs, Drug Disposit Dept, /Indianapolis//IN/46285; Indiana Univ, Dept Pharmacol, /Indianapolis//IN/46202; Indiana Univ, Dept Pediat, /Indianapolis//IN/46202; Indiana Univ, Dept Med, /Indianapolis//IN/46202. English. ARTICLE. 14 REFERENCES. ABSTRACT AVAILABLE

P. 1284-1289. Population pharmacokinetics of temozolomide in cancer patients. Jen JF; Cutler DL; Pai SM; Batra VK; Affrime MB; Zambas DN; Heft S; Hajian G. Schering Plough Res Inst, Dept Stat, 2015 Galloping Hill Rd,K-15-2-2125/Kenilworth//NJ/07033 (REPRINT); Schering Plough Res Inst, Dept Stat, /Kenilworth//NJ/07033; Schering Plough Res Inst, Dept Clin Pharmacol, /Kenilworth//NJ/07033; Schering Plough Res Inst, Dept Drug Metab & Pharmacokinet, /Kenilworth//NJ/07033. English. ARTICLE. 19 REFERENCES. ABSTRACT AVAILABLE

Section Heading: Pharmaceutical Engineering

P. 1290-1298. Hydrophilic matrices for controlled drug delivery: An improved mathematical model to predict the resulting drug release kinetics (the "sequential layer" model). Siepmann J; Peppas NA. Univ Angers, Pharm Galen Lab, 16 Blvd Daviers/F-49100 Angers//France/ (REPRINT); Free Univ Berlin, Coll Pharm, /D-12169 Berlin//Germany/; Purdue Univ, Sch Chem Engn, /W Lafayette//IN/47907. English. ARTICLE. 30 REFERENCES. ABSTRACT AVAILABLE

P. 1299-1308. Investigating the structure and properties of hydrated hydroxypropyl methylcellulose and egg albumin matrices containing carbamazepine: EPR and NMR study. Katzhendler I; Mader K; Azoury R; Friedman M. Hebrew Univ Jerusalem, David R Bloom Ctr Pharm, POB 12065/IL-91120 Jerusalem//Israel/ (REPRINT); Hebrew Univ Jerusalem, David R Bloom Ctr Pharm, /IL-91120 Jerusalem//Israel/; Free Univ Berlin, Dept Pharmaceut, /D-1000 Berlin//Germany/; Soreq NRC, Radiopharmaceut Div, /IL-10800 Yavne//Israel/. English. ARTICLE. 27 REFERENCES. ABSTRACT AVAILABLE

P. 1309-1315. Characterization and in vitro methotrexate release from

methotrexate/gelatin conjugates of opposite conjugate bond polarity. Bowman BJ; Ofner CM. Univ Sci Philadelphia, Dept Pharmaceut Sci, 600 S 43rd St/Philadelphia//PA/19104 (REPRINT); Univ Sci Philadelphia, Dept Pharmaceut Sci, /Philadelphia//PA/19104. English. ARTICLE. 31 REFERENCES. ABSTRACT AVAILABLE

P. 1316-1322. Freeze-concentration separates proteins and polymer excipients into different amorphous phases. Izutsu K; Kojima S. Natl Inst Hlth Sci, 1-18-1 Kamiyoga/Tokyo 1588501//Japan/ (REPRINT); Natl Inst Hlth Sci, /Tokyo 1588501//Japan/. English. ARTICLE. 30 REFERENCES. ABSTRACT AVAILABLE

P. 1323-1328. Biodegradable PLGA microspheres loaded with ganciclovir for intraocular administration. Encapsulation technique, in vitro release profiles, and sterilization process. Herrero-Vanrell R; Ramirez L; Fernandez-Carballido A; Refojo MF. Harvard Univ, Schepens Eye Res Inst, /Boston//MA/02115 (REPRINT); Harvard Univ, Schepens Eye Res Inst, /Boston//MA/02115; Univ Complutense, Fac Farm, /E-28040 Madrid//Spain/. English. ARTICLE. 29 REFERENCES. ABSTRACT AVAILABLE

Section Heading: SHORT COMMUNICATION

P. 1329-1332. New bicompartmental structures are observed when stearylamine is mixed with triglyceride emulsions. Teixeira H; Dubernet C; Rosilio V; Benita S; Lepault J; Erk I; Couvreur P. Univ Paris 11, UMR 8612, 5 Rue JB Clement/F-92296 Chatenay Malabry//France/ (REPRINT); Univ Paris Sud, UMR 8612, /F-92296 Chatenay Malabry//France/; CNRS, Ctr Genet Mol, /Gif Sur Yvette//France/; Hebrew Univ Jerusalem, Sch Pharm, /IL-91120 Jerusalem//Israel/. English. ARTICLE. 11 REFERENCES

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04jun01 14:23:17 User219783 Session D1718.2

Devi, S.
09/386266

- key terms

(FILE 'REGISTRY' ENTERED AT 14:51:42 ON 04 JUN 2001)

L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON "LACTIC ACID-GLYCOLIC ACID COPOLYMER"/CN

L3 1 SEA FILE=REGISTRY ABB=ON PLU=ON "POLY(DL-LACTIDE-CO-GLYCOLIDE)"/CN

(FILE 'CAPLUS' ENTERED AT 14:55:34 ON 04 JUN 2001)

L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON "LACTIC ACID-GLYCOLIC ACID COPOLYMER"/CN

L3 1 SEA FILE=REGISTRY ABB=ON PLU=ON "POLY(DL-LACTIDE-CO-GLYCOLIDE)"/CN

L4 2559 SEA FILE=CAPLUS ABB=ON PLU=ON L1 OR LACTIC(S)GLYCOLIC

L6 465 SEA FILE=CAPLUS ABB=ON PLU=ON (PLGA OR PLG)(S)LACTIDE

L7 1650 SEA FILE=CAPLUS ABB=ON PLU=ON L3 OR POLY(W)(DL OR DL)(W)LACTIDE(1W)GLYCOLIDE

L8 13 SEA FILE=CAPLUS ABB=ON PLU=ON (L4 OR L6 OR L7) AND (TH1 OR TH(W)1)

L8 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2001:146645 CAPLUS

TITLE: Protection against Bordetella pertussis infection following parenteral or oral immunization with antigens entrapped in biodegradable particles: effect of formulation and route of immunization on induction of **Th1** and Th2 cells

AUTHOR(S): Conway, M. A.; Madrigal-Estebas, L.; McClean, S.; Brayden, D. J.; Mills, K. H. G.

CORPORATE SOURCE: Department of Biology, Institute of Immunology, Infection and Immunity Group, National University of Ireland, Maynooth, Ire.

SOURCE: Vaccine (2001), 19(15-16), 1940-1950
CODEN: VACCDE; ISSN: 0264-410X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The immunogenicity and protective efficacy of systemically and orally delivered pertussis antigens entrapped in either microparticle poly-**lactide**-co-glycolide (**PLG**) or nanoparticle **PLG** formulations were evaluated in a murine respiratory challenge model for infection with Bordetella pertussis. The results demonstrate that immunization with two parenteral doses of 1 .mu.g or three oral doses of 100 .mu.g of pertussis toxoid (PTd) and filamentous haemagglutinin (FHA) encapsulated in PLG conferred a high level of protection against B. pertussis challenge. Furthermore protection could be generated with a single parenteral immunization with a combined microparticle and nanoparticle

formulation. However, the route of immunization and the size of the particles affected the type of T cell response induced. Parenteral immunization with PTd and FHA entrapped in PLG microparticles elicits a potent type 1 T cell response and potent antibody response when given by the i.p. (i.p.) or i.m. (i.m.) route. In contrast, nanoparticle formulations favored the induction of Th2 cells.

REFERENCE COUNT: 39
REFERENCE(S):
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(2) Bazin, H; J Immunol 1970, V105, P1049 CAPLUS
(4) Bomford, R; AIDS Res Hum Retrovir 1992, V8, P1765 CAPLUS
(7) Cahill, E; Vaccine 1995, V13, P455 CAPLUS
(8) Challacombe, S; Immunology 1992, V76, P164 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:137052 CAPLUS
DOCUMENT NUMBER: 134:183507
TITLE: Immunological tolerance-induction agent
INVENTOR(S): Kim, Ho-Youn; Park, Jong-Sang; Ryoo, Zae-Young; Bae, Euiyoung; Lee, Woo-Kyoung; Cho, Chul-Soo; Park, Sung-Hwan; Kim, Wan-Uk
PATENT ASSIGNEE(S): S. Korea
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001012222	A1	20010222	WO 1999-KR460	19990818

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AB A method for treating autoimmune diseases by administering orally to a mammal suffering from autoimmune diseases particles of biodegradable polymers or their complexes with an autoimmune antigen is provided. Only single administration can effectively induce oral

tolerance to autoimmune diseases, resulting in a strong and prolonged suppression of the diseases.

IT **26780-50-7**, **Poly(DL-lactide -co-glycolide)**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(immunol. tolerance-induction agent for treatment of autoimmune diseases)

REFERENCE COUNT: 4
REFERENCE(S):
(1) Baekkeskov; US 5691448 A 1997 CAPLUS
(2) Bai; WO 9937315 A1 1999 CAPLUS
(3) Corixa Corporation; WO 9909956 A1 1999 CAPLUS
(4) Lyfja Roun Hf Icelandic Bio Pharm Group; WO 9902186 A2 1999 CAPLUS

L8 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:608550 CAPLUS
DOCUMENT NUMBER: 133:213150
TITLE: Microemulsions with adsorbed macromolecules and microparticles for stimulation of immunity
INVENTOR(S): O'Hagan, Derek; Ott, Gary S.; Donnelly, John; Kazzaz, Jina; Ugozzoli, Mildred; Singh, Manmohan; Barackman, John
PATENT ASSIGNEE(S): Chiron Corp., USA
SOURCE: PCT Int. Appl., 95 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050006	A2	20000831	WO 2000-US3331	20000209
WO 2000050006	A3	20010118		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-121858 P 19990226
US 1999-146391 P 19990729

US 1999-161997 P 19991028

AB Microparticles with adsorbent surfaces, methods of making such microparticles, and uses thereof, are disclosed. The microparticles comprise a polymer, such as a poly(.alpha.-hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polyanhydride, and the like, and are formed using cationic, anionic, or nonionic detergents. The surface of the microparticles efficiently adsorb biol. active macromols., such as DNA, polypeptides, antigens, and adjuvants. Also provided are compns. of an oil droplet emulsion having a metabolizable oil and an emulsifying agent. Immunogenic compns. having an immunostimulating amt. of an antigenic substance, and an immunostimulating amt. of an adjuvant compn. are also provided. Methods of stimulating an immune response, methods of immunizing a host animal against a viral, bacterial, or parasitic infection, and methods of increasing a **Th1** immune response in a host animal by administering to the animal an immunogenic compn. of the microparticles, and/or microemulsions of the invention, are also provided.

IT **26780-50-7**, **Poly(DL-lactide -co-glycolide**
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(microemulsions with adsorbed macromols. and microparticles for stimulation of immunity)

L8 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:161163 CAPLUS
DOCUMENT NUMBER: 132:199032
TITLE: Method for inducing a cell-mediated immune response and parenteral vaccine formulations therefor
INVENTOR(S): Brayden, David James
PATENT ASSIGNEE(S): Elan Corporation, PLC, Ire.
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012125	A1	20000309	WO 1999-IE87	19990831

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD,

SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU,
ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9954412 A1 20000321 AU 1999-54412 19990831
PRIORITY APPLN. INFO.: US 1998-98760 P 19980901
WO 1999-IE87 W 19990831

AB A method of inducing either a **TH1** polarized immune response, a TH2 polarized immune response, or a combined **TH1** and TH2 response to an antigen, and assocd. vaccine formulations, are disclosed. A method is provided for inducing a polarized **TH1** response by parenteral administration of microparticles sized such that at least 50% of the microparticles are less than 5 .mu.m, the microparticles contg. antigen entrapped or encapsulated by a biodegradable polymer. Addnl., a method is provided for inducing a polarized TH2 response by parenteral administration of nanoparticles sized such that at least 50% of the nanoparticles are less than 600 nm, the nanoparticles contg. antigen entrapped or encapsulated by a biodegradable polymer. Vaccine formulations contg. the B. pertussis antigens PTd, FHA, or a combination of PTd and FHA, are provided.

IT **26780-50-7**, **Poly(D,L-lactide-co-glycolide)** **34346-01-5**, **Lactic** acid-**glycolic** acid copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cell-mediated immune response induction and parenteral vaccine)

REFERENCE COUNT: 11
REFERENCE(S):
(1) Cahill, E; VACCINE 1995, V13(5), P455 CAPLUS
(2) Cohen, S; "Microparticulate Systems for the Delivery of Proteins and Vaccines 1996, P51 CAPLUS
(3) Farrar Graham Henry; WO 9858668 A 1998 CAPLUS
(4) Jones, D; INFECTION AND IMMUNITY 1996, V64(2), P489 CAPLUS
(6) Medeva Holdings Bv; WO 9321950 A 1993 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:161162 CAPLUS
DOCUMENT NUMBER: 132:199031
TITLE: Oral vaccine compositions
INVENTOR(S): Brayden, David James
PATENT ASSIGNEE(S): Elan Corporation, PLC, Ire.
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012124	A1	20000309	WO 1999-IE86	19990831
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9954411	A1	20000321	AU 1999-54411	19990831

PRIORITY APPLN. INFO.: US 1998-98759 P 19980901
WO 1999-IE86 W 19990831

AB Oral vaccine formulations are disclosed having microparticles sized such that at least 50% of the microparticles are less than 5 .mu.m, preferably less than 3 .mu.m, the microparticles contg. antigen entrapped or encapsulated, e.g. by a solvent evapn. method, by a biodegradable polymer, e.g. **poly(D,L-lactide**-co-**glycolide**). Addnl., oral vaccine formulations are disclosed having nanoparticles sized such that at least 50% of the microparticles are less than 600 nm, preferably less than 500 nm, the nanoparticles contg. antigen entrapped or encapsulated, e.g. by a coacervation method, by a biodegradable polymer, e.g. **poly(D,L-lactide**-co-**glycolide**). Protective vaccine formulations contg. the B. pertussis antigens PTd or a combination of PTd and FHA are provided.

IT **26780-50-7**, **Poly(D,L-lactide**-co-**glycolide**) **34346-01-5**, **Lactic** acid-**glycolic** acid copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oral vaccine compns.)

REFERENCE COUNT: 9
REFERENCE(S):
(1) Cahill, E; VACCINE 1995, V13(5), P455 CAPLUS
(2) Desai, M; PHARMACEUTICAL RESEARCH 1996, V13(12), P1838 CAPLUS
(3) Henry, F; WO 9858668 A 1998 CAPLUS
(4) Jones, D; INFECTION AND IMMUNITY 1996, V64(2), P489 CAPLUS
(5) Medeva Holdings Bv; WO 9321950 A 1993 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:65254 CAPLUS
DOCUMENT NUMBER: 132:249710
TITLE: Oral DNA Vaccination Promotes Mucosal and Systemic Immune Responses to HIV Envelope Glycoprotein
AUTHOR(S): Kaneko, Hiroshi; Bednarek, Ilona; Wierzbicki, Andrzej; Kiszka, Irena; Dmochowski, Marian; Wasik, Thomas J.; Kaneko, Yutaro; Kozbor, Danuta
CORPORATE SOURCE: Department of Microbiology and Immunology, Thomas Jefferson University, Philadelphia, PA, 19107-6799, USA
SOURCE: Virology (2000), 267(1), 8-16
CODEN: VIRLAX; ISSN: 0042-6822
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In this report, we described induction of HIV envelope (env)-specific systemic and mucosal immune responses by oral vaccination of BALB/c mice with env-encoded plasmid DNA encapsulated in **poly**(**DL-lactide**-co-**glycolide**) (**PLG**) microparticles. We demonstrated that intragastric administration of the encapsulated plasmid DNA resulted in transduced expression of the env glycoprotein in the intestinal epithelium. Mice immunized orally exhibited env-specific type 1 and cytotoxic T lymphocyte (CTL) responses in spleen and the inductive (Peyer's patches) and effector (lamina propria) mucosal tissues of gut. Oral administration of PLG-encapsulated plasmid DNA encoding gp160 also induced env-specific serum antibodies, and an increased level of IgA directed to gp160 was detected in fecal washes of the immunized mice. In contrast, i.m. administration of naked or PLG-encapsulated DNA vaccine induced only systemic cellular and humoral responses to the env glycoprotein. Using an HIV env-expressing recombinant vaccinia viral intrarectal murine challenge system, we obsd. higher resistance to mucosal viral transmission in mice immunized orally than in animals injected i.m. with PLG-encapsulated plasmid DNA encoding gp160. Results of these studies demonstrate the feasibility of using orally delivered PLG microparticles contg. plasmid DNA-encoded HIV gp160 for induction of env-specific systemic and mucosal immune responses and protection against recombinant HIV env vaccinia virus challenge. (c) 2000 Academic Press.

IT **26780-50-7**, **Poly**(**DL-lactide**-co-**glycolide**)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oral DNA vaccination promotes mucosal and systemic immune responses to HIV gp160 encapsulated in **poly**(**DL-lactide**-co-**glycolide**) microparticles)

REFERENCE COUNT: 32
REFERENCE(S):
(1) Alexander-Miller, M; Proc Natl Acad Sci USA 1996, V93, P4102 CAPLUS
(2) Anton, L; J Immunol 1997, V158, P2535 CAPLUS
(3) Barouch, D; J Immunol 1998, V161, P1875 CAPLUS
(4) Belyakov, I; J Clin Invest 1998, V102, P2072 CAPLUS
(5) Belyakov, I; Proc Natl Acad Sci USA 1998, V95, P1709 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:722187 CAPLUS
DOCUMENT NUMBER: 132:255890
TITLE: Protection against B. pertussis challenge following parenteral and oral administration of microparticles loaded with pertussis antigens
AUTHOR(S): McClean, S.; Conway, M.; Mills, K. H. G.; Brayden, D. J.
CORPORATE SOURCE: Elan Pharmaceutical Technologies, Dublin, 2, Ire.
SOURCE: Proc. Int. Symp. Controlled Release Bioact. Mater. (1999), 26th, 153-154
CODEN: PCRMEY; ISSN: 1022-0178
PUBLISHER: Controlled Release Society, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Administration of pertussis toxin and filamentous hemagglutinin entrapped in glycolide-**lactide** copolymer (**PLG**) microparticles provides protective immunity after either oral or parenteral immunization. I.p. immunization with PLG-entrapped antigens resulted in a distinct **TH1** response, which has the potential for the development of vaccines against dieases caused by intracellular organisms.
IT **26780-50-7**, Glycolide-lactide copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protection against Bordetella pertussis challenge after parenteral and oral administration of microparticles loaded with antigens)
REFERENCE COUNT: 4
REFERENCE(S):
(1) Mills; Infect Immun 1993, V61, P339
(2) Mills; Infect Immun 1997, V66, P594
(3) Moore; Vaccine 1995, V13, P1741 CAPLUS
(4) Ramtoola; J Microencap 1992, V9, P415 CAPLUS

L8 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:401693 CAPLUS

DOCUMENT NUMBER: 131:43582
TITLE: Method to enhance an immune response of nucleic acid vaccination
INVENTOR(S): Dalemans, Wilfried L. J.; Van Mechelen, Marcelle Paulette; Bruck, Claudine; Friede, Martin
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9930733	A1	19990624	WO 1998-EP8152	19981211
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9919678	A1	19990705	AU 1999-19678	19981211
EP 1037662	A1	20000927	EP 1998-964509	19981211
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
BR 9814285	A	20001003	BR 1998-14285	19981211
NO 2000003087	A	20000808	NO 2000-3087	20000615

PRIORITY APPLN. INFO.: GB 1997-26555 A 19971216
WO 1998-EP8152 W 19981211

AB This invention provides a method to enhance an immune response of nucleic acid vaccination by simultaneous administration of a polynucleotide and a polypeptide of interest. The polypeptide may be presented in a delayed release formulation. Thus, plasmid encoding RSV F/G chimeric protein and plasmid contg. gp120 were prepd., and were vaccinated in combination with corresponding protein antigens according to vaccination procedures of the invention. Study of the prodn. of IgG isotypes indicates a more balance **Th1** and Th2 (i.e. IgG2a and IgG1) response to vaccination with DNA-protein antigen mixt.

IT **26780-50-7**, Poly(lactide-co-glycolide)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biodegradable polymer coating; vaccination with DNA and protein antigen for enhancing immune response)

REFERENCE COUNT: 5

REFERENCE(S): (1) Dummy; Vaccine 1997, V15(3), P340
(2) Letvin, N; Proceedings of the National Academy of Sciences of the United States of America 1997, V94(17), P9378 CAPLUS
(3) Okuda, K; Vaccine 1997, V15(10), P1049 CAPLUS
(4) Samuel, J; WO 9640066 A 1996 CAPLUS
(5) Therexsys Ltd; WO 9728818 A 1997 CAPLUS

L8 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:707256 CAPLUS
DOCUMENT NUMBER: 130:86030
TITLE: A comparison of biodegradable microparticles and MF59 as systemic adjuvants for recombinant gD from HSV-2
AUTHOR(S): Singh, Manmohan; Carlson, Julia R.; Briones, Maylene; Ugozzoli, Mildred; Kazzaz, Jina; Barackman, John; Ott, Gary; O'Hagan, Derek
CORPORATE SOURCE: Adjuvant Research Division, Chiron Corporation, Emeryville, CA, 94608, USA
SOURCE: Vaccine (1998), 16(19), 1822-1827
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A recombinant form of glycoprotein D from herpes simplex virus type-2 (gD2) was encapsulated into polylactide-co-glycolide (PLG) microparticles using a previously established solvent evapn. technique. The mean size of the microparticles was about 1 .mu.m and high encapsulation efficiency of the antigen was achieved (70-80%). The microparticles were administered i.m. to Balb/C mice and the immune reponses were compared with those obtained with the oil in water adjuvant MF59. The serum IgG response to gD2 induced by the microparticles was comparable with that induced by MF59. The serum neutralization titers were also comparable for microparticles and the emulsion. However, the microparticles induced a higher IgG2a isotype response and a more potent serum IFN-.gamma. response than MF59, suggesting a more **Th1** type of response. The MF59 induced higher levels of serum IL-4 and IL-5 cytokines, suggesting a more Th2 type of response.
IT **26780-50-7**, Polylactide-co-glycolide
RL: BAC (Biological activity or effector, except adverse); DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(comparison of biodegradable PLG microparticles and MF59 as systemic adjuvants for recombinant glycoprotein D of HSV-2)
REFERENCE COUNT: 30
REFERENCE(S): (1) Alonso, M; Vaccine 1994, V12, P299 CAPLUS

(2) Barackman, J; STP Pharma 1998, V8(1), P41
CAPLUS
(3) Brady, J; J Biomed Mater Res 1973, V7, P155
CAPLUS
(6) Eldridge, J; Infect Immun 1991, V59, P2978
CAPLUS
(7) Eldridge, J; Mol Immunol 1991, V28, P287
CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:569260 CAPLUS
DOCUMENT NUMBER: 129:280894
TITLE: Delivery of MUC1 mucin peptide by poly(d,l-**lactic**-co-**glycolic** acid) microspheres induces Type 1 T-helper immune responses
AUTHOR(S): Newman, Kimberley D.; Sosnowski, Deborah L.; Kwon, Glen S.; Samuel, John
CORPORATE SOURCE: Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Edmonton, AB, Can.
SOURCE: J. Pharm. Sci. (1998), 87(11), 1421-1427
CODEN: JPMSAE; ISSN: 0022-3549
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Synthetic peptides corresponding to the variable tandem repeat domain of the cancer-assocd. antigen MUC1 mucin are candidates for cancer vaccines. In our investigation mice were immunized via s.c. injection with poly(d,l-**lactic**-co-**glycolic** acid) (PLGA) microspheres contg. a MUC1 mucin peptide. It was hypothesized that microencapsulation of the MUC1 mucin peptide would prime for antigen-specific **Th1** responses while avoiding the need for traditional adjuvants and carrier proteins. Furthermore, an immunomodulator, monophosphoryl lipid A (MPLA), was incorporated into the peptide-loaded PLGA microspheres based on its ability to enhance **Th1** responses. The results revealed T cell specific immune responses. The cytokine secretion profiles of the T cells consisted of high levels of interferon-.gamma. with undetectable levels of interleukin-4 and interleukin-10. Moreover, incorporation of MPLA in the MUC1 peptide-loaded PLGA microspheres resulted in an increase in interferon-.gamma. prodn. The antibody response was neg. for IgM and IgG in the absence of MPLA; however, in the presence of MPLA antibody prodn. was neg. for IgM with a minimal IgG response consisting of IgG2a, IgG2b, and IgG3. Based on the antibody and cytokine profiles, it was concluded that MUC1 mucin peptide-loaded PLGA microspheres are capable of eliciting specific **Th1** responses, which may be enhanced through the use of

MPLA.

IT **26780-50-7**, **Poly**(D,L-**lactide**-co-**glycolide**)
RL: BAC (Biological activity or effector, except adverse); DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delivery of MUC1 mucin peptide by **poly**(D,L-**lactide**-co-**glycolide**) microspheres induces Type 1 T-helper immune responses)

L8 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:281221 CAPLUS
DOCUMENT NUMBER: 129:45197
TITLE: Ovalbumin peptide encapsulated in poly(dl-**lactic**-co-**glycolic** acid) microspheres is capable of inducing a T helper type 1 immune response
AUTHOR(S): Newman, K. D.; Samuel, J.; Kwon, G.
CORPORATE SOURCE: Faculty of Pharmacy & Pharmaceutical Sciences, 3118 Dentistry/Pharmacy Centre, University of Alberta, Edmonton, AB, T6G 2N8, Can.
SOURCE: J. Controlled Release (1998), 54(1), 49-59
CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An ovalbumin (OVA) peptide, consisting of residues 323-339, was incorporated into poly(dl-**lactic**-co-**glycolic** acid) (PLGA) microspheres and administered to mice. It was hypothesized that microencapsulation of the peptide in PLGA microspheres would avoid the need for traditional adjuvants and bias the immune response towards a type 1 T helper (**Th1**) response. An immunomodulator, monophosphoryl lipid A (MPLA), was incorporated into the microspheres to det. its efficacy in enhancing a **Th1** response. The specificity of the immune response was detd. using a T cell proliferation assay. The type of T helper response was detd. by anal. of the cytokine secretion profiles of the proliferating T cells. Following s.c. immunization, the results revealed a T cell-specific immune response for the encapsulated OVA peptide both with and without MPLA. The cytokine profiles revealed high levels of IFN-.gamma. with very low levels of IL-4 and IL-10, suggesting a **Th1** response. Furthermore, incorporation of MPLA in the peptide loaded PLGA microspheres resulted in an increase in the prodn. of IFN-.gamma.. Hence, peptide-loaded PLGA microspheres are capable of eliciting a specific **Th1** immune response, which may be further enhanced in the presence MPLA.

IT **34346-01-5**, **Glycolic** acid-**lactic** acid copolymer

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ovalbumin peptide encapsulated in poly(**lactic**-co-**glycolic** acid) microspheres induction of immune response)

L8 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:91408 CAPLUS
DOCUMENT NUMBER: 124:172860
TITLE: Immunization with a soluble recombinant HIV protein entrapped in biodegradable microparticles induces HIV-specific CD8+ cytotoxic T lymphocytes and CD4+ **Th1** cells
AUTHOR(S): Moore, Anne; McGuirk, Peter; Adams, Susan; Jones, Wendy C.; McGee, J. Paul; O'Hagan, Derek T.; Mills, Kingston H. G.
CORPORATE SOURCE: Biology Dep., St. Patrick's College, Maynooth, Ire.
SOURCE: Vaccine (1995), 13(18), 1741-9
CODEN: VACCDE; ISSN: 0264-410X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB One of the major obstacles to the development of successful recombinant vaccines against human immunodeficiency virus (HIV) and other intracellular pathogens is the identification of a safe and effective vaccine delivery system for the induction of cell mediated immunity with sol. protein antigens. In this study it was demonstrated that immunization with a recombinant HIV envelope (env) protein entrapped in biodegradable poly(**lactide**-co-glycolide) (**PLG**) microparticles induced consistent HIV-specific CD4+ and CD8+ T-cell responses in mice. Major histocompatibility complex (MHC) class I-restricted cytotoxic T lymphocytes (CTL) responses were detected following a single systematic immunization with gp120 entrapped microparticles and when given by the intranasal (i.n.) route induced HIV-specific CD8+ CTL and secretory IgA. Furthermore immunization with gp120 entrapped in microparticles generated CD4+ T cells that secreted moderate to high levels of IFN-.gamma.. Therefore, PLG microparticles are a safe and effective means of delivering antigen to the appropriate processing site for the generation of class I-restricted CTL, and are also capable of inducing **Th1** cells.
IT **26780-50-7**
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immunization with HIV gp120 entrapped in biodegradable microparticles induces HIV-specific CD8+ cytotoxic T lymphocytes and CD4+ **Th1** cells)

L8 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1995:612079 CAPLUS
DOCUMENT NUMBER: 123:122831
TITLE: Immune responses and protection against Bordetella pertussis infection after intranasal immunization of mice with filamentous hemagglutinin in solution or incorporated in biodegradable microparticles
AUTHOR(S): Cahill, E. S.; O'Hagan, D. T.; Illum, L.; Barnard, A.; Mills, K. H. G.; Redhead, K.
CORPORATE SOURCE: Department Pharmaceutical Sciences, Nottingham University, Nottingham, UK
SOURCE: Vaccine (1995), 13(5), 455-62
CODEN: VACCDE; ISSN: 0264-410X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The intranasal (i.n.) immunization of mice with Bordetella pertussis filamentous hemagglutinin (FHA) either as a soln. or incorporated in biodegradable microparticles induced very similar immune responses. Both resulted in strong systemic IgG responses to FHA and good levels of anti-FHA IgG and IgA in the lungs of immunized mice. In comparison, the i.p. immunization of mice with FHA, as a soln., engineered anti-FHA antibody responses which were stronger for serum IgG, similar for lung IgG and lower for lung IgA. The anti-FHA antibody levels, as measured by immunosorbent assay, were shown to correlate with their functional activity in the blocking of B. pertussis adhesion to HeLa tissue-culture cells. All three forms of immunization appeared to stimulate T-cell responses as assessed by in vitro antigen-specific spleen cell proliferation and IL-2 secretion indicative of a **Th1** type response, however, cells from i.p. immunized mice only secreted low levels of IL-5. All three methods of FHA immunization provided mice with significant protection against subsequent aerosol challenge with virulent B. pertussis. Mice which had been immunized intra-nasally eliminated the bacteria from their lungs slightly more rapidly than i.p. immunized mice, demonstrating the efficacy of intranasal administration of FHA in soln. and in the more practical biodegradable microparticle form.

IT **26780-50-7**, Glycolide-lactide copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(intranasal immunization with biodegradable microparticles contg. filamentous hemagglutinin against Bordetella pertussis infection)

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO, TOXLIT, TOXLINE, PHIC, PHIN' ENTERED AT 15:02:57 ON 04 JUN 2001)
L9 28 S L8
L10 15 DUP REM L9 (13 DUPLICATES REMOVED)

L10 ANSWER 1 OF 15 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 1

ACCESSION NUMBER: 2001:189374 BIOSIS
DOCUMENT NUMBER: PREV200100189374
TITLE: Protection against Bordetella pertussis infection following parenteral or oral immunization with antigens entrapped in biodegradable particles: Effect of formulation and route of immunization on induction of **Th1** and Th2 cells.
AUTHOR(S): Conway, Margaret A.; Madrigal-Estebas, Laura; McClean, Siobhan; Brayden, David J.; Mills, Kingston H. G. (1)
CORPORATE SOURCE: (1) Infection and Immunity Group, Department of Biology, Institute of Immunology, National University of Ireland, Maynooth, Co. Kildare: kingston.mills@may.ie Ireland
SOURCE: Vaccine, (28 February, 2001) Vol. 19, No. 15-16, pp. 1940-1950. print.
ISSN: 0264-410X.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English

AB The immunogenicity and protective efficacy of systemically and orally delivered pertussis antigens entrapped in either microparticle poly-**lactide**-co-glycolide (**PLG**) or nanoparticle **PLG** formulations were evaluated in a murine respiratory challenge model for infection with Bordetella pertussis. The results demonstrate that immunization with two parenteral doses of 1 mug or three oral doses of 100 mug of pertussis toxoid (PTd) and filamentous haemagglutinin (FHA) encapsulated in **PLG** conferred a high level of protection against B. pertussis challenge. Furthermore protection could be generated with a single parenteral immunization with a combined microparticle and nanoparticle formulation. However, the route of immunization and the size of the particles affected the type of T cell response induced. Parenteral immunization with PTd and FHA entrapped in **PLG** microparticles elicits a potent type 1 T cell response and potent antibody response when given by the intraperitoneal (i.p.) or intramuscular (i.m.) route. In contrast, nanoparticle formulations favoured the induction of Th2 cells.

L10 ANSWER 2 OF 15 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2000-587123 [55] WPIDS
DOC. NO. CPI: C2000-174971
TITLE: Microemulsion having an adsorbent surface comprising a microdroplet emulsion consisting of a metabolizable oil and an emulsifying agent which is a detergent, useful as a vaccine to treat bacterial, viral, and parasitic infection.
DERWENT CLASS: A96 B04 C06 D16

INVENTOR(S): BARACKMAN, J; DONNELLY, J; KAZZAZ, J; O'HAGAN, D; OTT, G S; SINGH, M; UGOZZOLI, M
PATENT ASSIGNEE(S): (CHIR) CHIRON CORP
COUNTRY COUNT: 90
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000050006	A2	20000831	(200055)*	EN	93

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000028757 A 20000914 (200063)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000050006	A2	WO 2000-US3331	20000209
AU 2000028757	A	AU 2000-28757	20000209

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000028757	A Based on	WO 200050006

PRIORITY APPLN. INFO: US 1999-161997 19991028; US 1999-121858 19990226; US 1999-146391 19990729

AN 2000-587123 [55] WPIDS

AB WO 200050006 A UPAB: 20001102

NOVELTY - A microemulsion having an adsorbent surface comprising a microdroplet emulsion consisting of a metabolizable oil and an emulsifying agent (a detergent), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method (M1) of immunizing a host animal against a viral, bacterial or parasitic infection comprising administering the microemulsion;

(2) a method (M2) of inducing a **Th1** immune response in a host animal comprising administering the microemulsion;

(3) a composition comprising the microemulsion and a microparticle having an adsorbent surface, where the microparticle comprises a polymer selected from a poly(alpha -hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a

polyanhydride, and a polycyanoacrylate, and a second detergent.
ACTIVITY - Antiviral; antibacterial; antiparasitic.
MECHANISM OF ACTION - Vaccine.
PLG (poly(D,L-**lactide**))/CTAB (hexadecyltrimethylammonium), **PLG**/SDS (sodium dodecyl sulfate), and **PLG**/PVA (polyvinyl alcohol) microparticles were formed. Eight groups of microparticles were made in order to analyze the different effects of immunizing mice with adsorbed antigen p55 gag protein on microparticles versus providing free soluble p55 gag, and to determine the effects of having the adjuvant CpG (20 base long single stranded oligonucleotides with a CpG motif) also adsorbed on other microparticles or provided in free soluble form. Group 1 used soluble p55 gag protein mixed with **PLG**/CTAB, group 2 used **PLG**/SDS particles with adsorbed p55 gag mixed with **PLG**/CTAB particles with adsorbed CpG, group 3 used **PLG**/SDS particles with adsorbed p55 gag mixed with free CpG, group 4 used **PLG**/SDS particles with adsorbed p55 gag and no adjuvant, group 5 used **PLG**/PVA particles with p55 gag entrapped, mixed with **PLG**/CTAB particles with CpG adsorbed, group 6 was a control, used no antigen and soluble CpG, group 7 was control, used soluble p55 gag protein and no adjuvants, and group 8 was control, used only vaccinia virus (vv gag) expressing the gag gene, and no adjuvants. For each group mice were immunized with sufficient quantities of microparticles or free molecules such that the dosage of p55 gag antigen and CpG adjuvant were 25 micro g each (if present in the group), except for group 8 which was used at a dosage of 10 multiply 107 plaque forming units (pfu). The route of immunization was intramuscular (IM), except for group 8 which used intraperitoneal (IP). Following immunization, serum anti-p55 IgG titer was measured. Serum titers for groups 1-8 were 43250, 49750, 62750, 7550, 127000, 38, 2913, and 938, respectively.
USE - The microemulsion is useful as a vaccine for treating bacterial, viral and parasitic infections.
Dwg.0/4

L10 ANSWER 3 OF 15 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2000-237780 [20] WPIDS
DOC. NO. CPI: C2000-072440
TITLE: Inducing polarized immune response to an antigen preferably Bordetella pertussis antigen, comprises administering microparticles containing the entrapped or encapsulated antigen.
DERWENT CLASS: A23 A96 B04 D16
INVENTOR(S): BRAYDEN, D J
PATENT ASSIGNEE(S): (ELAN-N) ELAN CORP PLC
COUNTRY COUNT: 88
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000012125	A1	20000309	(200020)*	EN	66
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW					
AU 9954412	A	20000321	(200031)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000012125	A1	WO 1999-IE87	19990831
AU 9954412	A	AU 1999-54412	19990831

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9954412	A	Based on	WO 200012125

PRIORITY APPLN. INFO: US 1998-98760 19980901

AN 2000-237780 [20] WPIDS

AB WO 200012125 A UPAB: 20000426

NOVELTY - Inducing a **TH1** polarized immune response to an antigen comprising parenterally administering microparticles (I), at least 50% of which are less than 5 mu m, comprising the antigen entrapped or encapsulated by a biodegradable polymer, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a method of inducing a TH2 polarized immune response to an antigen comprising parenterally administering nanoparticles (II), at least 50% of which are less than 600 nm, comprising the antigen entrapped or encapsulated by a biodegradable polymer;

(2) a method of inducing a combined **TH1** and TH2 immune response to an antigen comprising parenterally administering (I) in combination with (II);

(3) a vaccine formulation for enhancing the **TH1** immune response to at least one antigen and adapted for parenteral administration, comprising (I) and a carrier;

(4) a vaccine formulation for enhancing the TH2 immune response to at least one antigen and adapted for parenteral administration, comprising (II) and a carrier;

(5) a method of providing protective immunity against

Bordetella pertussis, comprising parenterally administering (I) comprising at least one B. pertussis antigen; and

(6) a method of providing protective immunity against B. pertussis, comprising parenterally administering (II) comprising at least one B. pertussis antigen.

ACTIVITY - Vaccine; Immunomodulator. Groups of 20 balb/c were immunized parenterally (i.p.) at week 0 and at week 4 with 1 mu g each of inactivated pertussis toxin (PTd) and filamentous hemaglutinin (FHA) entrapped in **poly**(**DL-lactide**-co-**glycolide**) (**PLGA**) microparticles; 1 mu g each of PTd and FHA adsorbed to alum; 1 mu g of PTd entrapped in **PLGA** microparticles or 1 mu g FHA entrapped in **PLGA** microparticles. The control group received empty **PLGA** microparticles. The ability of **PLGA**-entrapped antigen (low dose) to protect against B. pertussis was examined in the respiratory challenge model. The mice were sacrificed at different time points over a two-week period after the aerosol challenge and lung homogenates were cultured and examined after 5 days culture for the number of colony forming units (CFU). The results 3, 7, 10 and 14 days after challenge reveal a high level of protection with 1 mu g of FHA and PTd either microencapsulated in **PLGA** or adsorbed to alum. Both treatments provide substantial clearance of B. pertussis by the third day post challenge following challenge 6 weeks after immunization.

MECHANISM OF ACTION - Vaccine.

USE - The methods provide protective immunity against B. pertussis and compositions can be used in the preparation of a B. pertussis vaccine and for the vaccination against B. pertussis.

Dwg.0/10

L10 ANSWER 4 OF 15 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD

ACCESSION NUMBER: 2000-270741 [23] WPIDS

DOC. NO. CPI: C2000-082491

TITLE: Oral vaccine, useful particularly for preventing pertussis, comprises micro- or nano-particles, of controlled size, containing antigen and biodegradable polymer matrix.

DERWENT CLASS: A23 A96 B04 D16

INVENTOR(S): BRAYDEN, D J

PATENT ASSIGNEE(S): (ELAN-N) ELAN CORP PLC

COUNTRY COUNT: 88

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2000012124	A1	20000309	(200023)*	EN	51

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC

MW NL OA PT SD SE SL SZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD
SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW
AU 9954411 A 20000321 (200031)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000012124	A1	WO 1999-IE86	19990831
AU 9954411	A	AU 1999-54411	19990831

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9954411	A	Based on	WO 200012124

PRIORITY APPLN. INFO: US 1998-98759 19980901
AN 2000-270741 [23] WPIDS
AB WO 200012124 A UPAB: 20000516
NOVELTY - An oral vaccine (A) comprising a carrier and microparticles (MP) or nanoparticles (NP) comprising at least one antigen (Ag) entrapped or encapsulated in a biodegradable polymer (I), is new. At least 50% of MP are smaller than 5 mu m, and at least 50% of NP are smaller than 600nm.

ACTIVITY - Antibacterial; antiviral; antiparasitic; anticancer. Mice were treated orally, three times at 4 week intervals, with 0.1 mu g each of inactivated pertussis toxin and FHA (filamentous hemagglutinin) encapsulated in poly(**lactic**-co-**glycolic** acid) microparticles. Two weeks after the last injection they were challenged, by aerosol, with 104-105 colony-forming units (cfu) per lung of B. pertussis. Periodically the number of cfu in lung homogenate was determined. In vaccinated animals the bacteria had been entirely cleared after 14 days, at which time control animals carried about 50000 bacteria per lung.

MECHANISM OF ACTION - Vaccine.

USE - (A) are specifically used to induce a protective response against Bordetella pertussis (claimed), or, more generally, any infectious or pathogenic agent or cancer.

ADVANTAGE - By altering the nature of the carrier, method of loading and route of administration, the vaccine may be designed to provide a **Th1**, Th2 or mixed response.

Dwg.0/7

L10 ANSWER 5 OF 15 TOXLIT

ACCESSION NUMBER: 2000:64553 TOXLIT
DOCUMENT NUMBER: CA-133-213150A
TITLE: Microemulsions with adsorbed macromolecules and microparticles for stimulation of immunity.
AUTHOR: O'Hagan D; Ott GS; Donnelly J; Kazzaz J; Ugozzoli M; Singh M; Barackman J
SOURCE: (2000). PCT Int. Appl. PATENT NO. 0050006 08/31/2000 (Chiron Corp.).
CODEN: PIXXD2.
PUB. COUNTRY: UNITED STATES
DOCUMENT TYPE: Patent
FILE SEGMENT: CA
LANGUAGE: English
OTHER SOURCE: CA 133:213150
ENTRY MONTH: 200009
AB Microparticles with adsorbent surfaces, methods of making such microparticles, and uses thereof, are disclosed. The microparticles comprise a polymer, such as a poly(.alpha.-hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polyanhydride, and the like, and are formed using cationic, anionic, or nonionic detergents. The surface of the microparticles efficiently adsorb biol. active macromols., such as DNA, polypeptides, antigens, and adjuvants. Also provided are compns. of an oil droplet emulsion having a metabolizable oil and an emulsifying agent. Immunogenic compns. having an immunostimulating amt. of an antigenic substance, and an immunostimulating amt. of an adjuvant compn. are also provided. Methods of stimulating an immune response, methods of immunizing a host animal against a viral, bacterial, or parasitic infection, and methods of increasing a **Th1** immune response in a host animal by administering to the animal an immunogenic compn. of the microparticles, and/or microemulsions of the invention, are also provided.

L10 ANSWER 6 OF 15 TOXLIT
ACCESSION NUMBER: 2000:8407 TOXLIT
DOCUMENT NUMBER: CA-132-199032J
TITLE: Method for inducing a cell-mediated immune response and parenteral vaccine formulations therefor.
AUTHOR: Brayden DJ
SOURCE: (2000). PCT Int. Appl. PATENT NO. 0012125 03/09/2000 (Elan Corporation, PLC).
CODEN: PIXXD2.
PUB. COUNTRY: IRELAND
DOCUMENT TYPE: Patent
FILE SEGMENT: CA
LANGUAGE: English
OTHER SOURCE: CA 132:199032
ENTRY MONTH: 200003

AB A method of inducing either a **TH1** polarized immune response, a TH2 polarized immune response, or a combined **TH1** and TH2 response to an antigen, and assocd. vaccine formulations, are disclosed. A method is provided for inducing a polarized **TH1** response by parenteral administration of microparticles sized such that at least 50% of the microparticles are less than 5 .mu.m, the microparticles contg. antigen entrapped or encapsulated by a biodegradable polymer. Addnl., a method is provided for inducing a polarized TH2 response by parenteral administration of nanoparticles sized such that at least 50% of the nanoparticles are less than 600 nm, the nanoparticles contg. antigen entrapped or encapsulated by a biodegradable polymer. Vaccine formulations contg. the B. pertussis antigens PTd, FHA, or a combination of PTd and FHA, are provided.

L10 ANSWER 7 OF 15 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 2001128516 MEDLINE
DOCUMENT NUMBER: 20507192 PubMed ID: 11052820
TITLE: Macrophage activation for the production of immunostimulatory cytokines by delivering interleukin 1 via biodegradable microspheres.
AUTHOR: Mullerad J; Cohen S; Voronov E; Apte R N
CORPORATE SOURCE: Department of Biotechnology Engineering, Ben-Gurion University of the Negev, Beer-Sheva, 84105, Israel.
SOURCE: CYTOKINE, (2000 Nov) 12 (11) 1683-90.
Journal code: A52; 9005353. ISSN: 1043-4666.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200103
ENTRY DATE: Entered STN: 20010404
Last Updated on STN: 20010404
Entered PubMed: 20001218
Entered Medline: 20010301

AB Interleukin 1alpha (IL-1alpha), a pleiotropic cytokine with multiple anti-tumour activities, has been investigated in our laboratory for its potential to serve as an immunotherapeutic agent. In the present study, an attempt was made to direct IL-1alpha to macrophages, in order to induce their immunoregulatory activities. For that purpose, IL-1alpha was encapsulated within biodegradable poly(**lactic** /**glycolic** acid) microspheres, 1-5 microm diameter in size. The microspheres were efficiently taken-up by macrophages in culture and after intraperitoneal injection into mice. In culture, phagocytosis of the microspheres reached saturation within 3 h and there was no apparent effect of polymer type on the extent of uptake. In vivo uptake of human IL-1alpha-microspheres by the macrophages lead to cell activation, as evidenced by the enhanced

production of murine IL-1alpha, IL-6 and IL-12. Control microspheres, containing bovine serum albumin, induced only background to low levels of cytokine production. These cytokines, when expressed by or secreted from macrophages, may stimulate in situ diverse immune and inflammatory responses, including T cell-mediated immune responses, such as the development of **Th**(**1**)cells and cytotoxic lymphocytes. Thus, directing IL-1alpha into macrophages, via the appropriate microspheres, may serve as a unique mean to activate these cells to participate in anti-tumour immune responses in situ.

L10 ANSWER 8 OF 15 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 1999231930 MEDLINE
DOCUMENT NUMBER: 99231930 PubMed ID: 10217578
TITLE: Induction of cellular immunity to a mycobacterial antigen adsorbed on lamellar particles of lactide polymers.
AUTHOR: Venkataprasad N; Coombes A G; Singh M; Rohde M; Wilkinson K; Hudecz F; Davis S S; Vordermeier H M
CORPORATE SOURCE: MRC Clinical Sciences Centre, Tuberculosis & Related Infections Unit, Hammersmith Hospital, London, UK.
SOURCE: VACCINE, (1999 Apr 9) 17 (15-16) 1814-9.
Journal code: X60; 8406899. ISSN: 0264-410X.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199907
ENTRY DATE: Entered STN: 19990715
Last Updated on STN: 19990715
Entered Medline: 19990708

AB Microspheres prepared from synthetic, biodegradable poly (L-**lactide**) [PLA] and copolymers of **lactide** and glycolide such as **poly** (**DL lactide** co-**glycolide**) [**PLG**] have been widely investigated for controlled delivery of encapsulated vaccine antigens. In this study we describe novel lamellar microparticles produced from PLA to which protein antigens can be adsorbed. These particles when administered to mice, induced strong **Th1**-type T cell responses to the adsorbed 38 kDa protein antigen from M. tuberculosis characterised by high levels of Interferon-gamma. In addition to proteins, we were also able to adsorb synthetic peptides resulting in specific T cell proliferation. Induction of strong cellular immunity together with the versatility of antigen adsorption to these particles should make such lamellae a useful tool to deliver protective antigens from intracellular pathogens.

L10 ANSWER 9 OF 15 TOXLIT
ACCESSION NUMBER: 1999:138539 TOXLIT
DOCUMENT NUMBER: CA-132-255890B
TITLE: Protection against B. pertussis challenge following parenteral and oral administration of microparticles loaded with pertussis antigens.
AUTHOR: McClean S; Conway M; Mills KHG; Brayden DJ
CORPORATE SOURCE: Elan Pharmaceutical Technologies, Dublin
SOURCE: Proc. Int. Symp. Controlled Release Bioact. Mater., (1999). Vol. 26th, pp. 153-154.
CODEN: PCRMEY. ISSN. 1022-0178.
PUB. COUNTRY: IRELAND
DOCUMENT TYPE: Journal; Journal Article
FILE SEGMENT: CA
LANGUAGE: English
OTHER SOURCE: CA 132:255890
ENTRY MONTH: 200004
AB Administration of pertussis toxin and filamentous hemagglutinin entrapped in glycolide-**lactide** copolymer (**PLG**) microparticles provides protective immunity after either oral or parenteral immunization. I.p. immunization with **PLG** -entrapped antigens resulted in a distinct **TH1** response, which has the potential for the development of vaccines against dieases caused by intracellular organisms.

L10 ANSWER 10 OF 15 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.DUPLICATE 4
ACCESSION NUMBER: 1998349284 EMBASE
TITLE: A comparison of biodegradable microparticles and MF59 as systemic adjuvants for recombinant gD from HSV-2.
AUTHOR: Singh M.; Carlson J.R.; Briones M.; Ugozzoli M.; Kazzaz J.; Barackman J.; Ott G.; O'Hagan D.
CORPORATE SOURCE: M. Singh, Adjuvant Research Division, Chiron Corporation, 4560 Horton Street, Emeryville, CA 94608, United States
SOURCE: Vaccine, (1998) 16/19 (1822-1827).
Refs: 30
ISSN: 0264-410X CODEN: VACCDE
PUBLISHER IDENT.: S 0264-410X(98)00179-0
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 026 Immunology, Serology and Transplantation
037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
AB A recombinant form of glycoprotein D from herpes simplex virus type-2 (gD2) was encapsulated into polylactide-co-glycolide (PLG)

microparticles using a previously established solvent evaporation technique. The mean size of the microparticles was about 1 .mu.m and high encapsulation efficiency of the antigen was achieved (70-80%). The microparticles were administered intramuscularly to Balb/C mice and the immune responses were compared with those obtained with the oil in water adjuvant MF59. The serum IgG response to gD2 induced by the microparticles was comparable with that induced by MF59. The serum neutralization titres were also comparable for microparticles and the emulsion. However, the microparticles induced a higher IgG2a isotype response and a more potent serum IFN-.gamma. response than MF59, suggesting a more **Th1** type of response. The MF59 induced higher levels of serum IL-4 and IL-5 cytokines, suggesting a more Th2 type of response.

L10 ANSWER 11 OF 15 MEDLINE DUPLICATE 5
ACCESSION NUMBER: 1999030495 MEDLINE
DOCUMENT NUMBER: 99030495 PubMed ID: 9811500
TITLE: Delivery of MUC1 mucin peptide by Poly(d,l-**lactic**-co-**glycolic** acid) microspheres induces type 1 T helper immune responses.
AUTHOR: Newman K D; Sosnowski D L; Kwon G S; Samuel J
CORPORATE SOURCE: Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Edmonton Alberta, Canada.
SOURCE: JOURNAL OF PHARMACEUTICAL SCIENCES, (1998 Nov) 87 (11) 1421-7.
Journal code: JO7; 2985195R. ISSN: 0022-3549.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199812
ENTRY DATE: Entered STN: 19990115
Last Updated on STN: 20000303
Entered Medline: 19981223

AB Synthetic peptides corresponding to the variable tandem repeat domain of the cancer-associated antigen MUC1 mucin are candidates for cancer vaccines. In our investigation mice were immunized via subcutaneous injection with poly(d,l-**lactic**-co-**glycolic** acid) (PLGA) microspheres containing a MUC1 mucin peptide. It was hypothesized that microencapsulation of the MUC1 mucin peptide would prime for antigen-specific **Th1** responses while avoiding the need for traditional adjuvants and carrier proteins. Furthermore, an immunomodulator, monophosphoryl lipid A (MPLA), was incorporated into the peptide-loaded PLGA microspheres based on its ability to enhance **Th1** responses. The results revealed T cell specific immune responses. The cytokine secretion profiles of the T cells consisted of high

levels of interferon-gamma with undetectable levels of interleukin-4 and interleukin-10. Moreover, incorporation of MPLA in the MUC1 peptide-loaded PLGA microspheres resulted in an increase in interferon-gamma production. The antibody response was negative for IgM and IgG in the absence of MPLA; however, in the presence of MPLA antibody production was negative for IgM with a minimal IgG response consisting of IgG2a, IgG2b, and IgG3. Based on the antibody and cytokine profiles, it was concluded that MUC1 mucin peptide-loaded PLGA microspheres are capable of eliciting specific **Th1** responses, which may be enhanced through the use of MPLA.

L10 ANSWER 12 OF 15 MEDLINE DUPLICATE 6
ACCESSION NUMBER: 1998412934 MEDLINE
DOCUMENT NUMBER: 98412934 PubMed ID: 9741903
TITLE: Ovalbumin peptide encapsulated in poly(d,l **lactic**-co-**glycolic** acid) microspheres is capable of inducing a T helper type 1 immune response.
AUTHOR: Newman K D; Samuel J; Kwon G
CORPORATE SOURCE: 3118 Dentistry/Pharmacy Centre, Faculty of Pharmacy & Pharmaceutical Sciences, University of Alberta, Edmonton, Canada.
SOURCE: JOURNAL OF CONTROLLED RELEASE, (1998 Jun) 54 (1) 49-59.
Journal code: C46; 8607908. ISSN: 0168-3659.
PUB. COUNTRY: Netherlands
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199811
ENTRY DATE: Entered STN: 19990106
Last Updated on STN: 19990106
Entered Medline: 19981118

AB An ovalbumin (OVA) peptide, consisting of residues 323-339, was incorporated into poly(d,l **lactic**-co-**glycolic** acid) (PLGA) microspheres and administered to mice. It was hypothesized that microencapsulation of the peptide in PLGA microspheres would avoid the need for traditional adjuvants and bias the immune response towards a type 1 T helper (**Th1**) response. An immunomodulator, monophosphoryl lipid A (MPLA), was incorporated into the microspheres to determine its efficacy in enhancing a **Th1** response. The specificity of the immune response was determined using a T cell proliferation assay. The type of T helper response was determined by analysis of the cytokine secretion profiles of the proliferating T cells. Following s.c. immunization, the results revealed a T cell-specific immune response for the encapsulated OVA peptide both with and without MPLA. The cytokine profiles revealed high levels of IFN-gamma with very low

levels of IL-4 and IL-10, suggesting a **Th1** response. Furthermore, incorporation of MPLA in the peptide loaded PLGA microspheres resulted in an increase in the production of IFN-gamma. Hence, peptide-loaded PLGA microspheres are capable of eliciting a specific **Th1** immune response, which may be further enhanced in the presence MPLA.

L10 ANSWER 13 OF 15 MEDLINE DUPLICATE 7
ACCESSION NUMBER: 96264828 MEDLINE
DOCUMENT NUMBER: 96264828 PubMed ID: 8701587
TITLE: Immunization with a soluble recombinant HIV protein entrapped in biodegradable microparticles induces HIV-specific CD8+ cytotoxic T lymphocytes and CD4+ **Th1** cells.
AUTHOR: Moore A; McGuirk P; Adams S; Jones W C; McGee J P; O'Hagan D T; Mills K H
CORPORATE SOURCE: Biology Department, St. Patrick's College, Maynooth, Co. Kildare, Ireland.
SOURCE: VACCINE, (1995 Dec) 13 (18) 1741-9.
Journal code: X6O; 8406899. ISSN: 0264-410X.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199609
ENTRY DATE: Entered STN: 19960912
Last Updated on STN: 19960912
Entered Medline: 19960904

AB One of the major obstacles to the development of successful recombinant vaccines against human immunodeficiency virus (HIV) and other intracellular pathogens is the identification of a safe and effective vaccine delivery system for the induction of cell mediated immunity with soluble protein antigens. In this study it was demonstrated that immunization with a recombinant HIV envelop (env) protein entrapped in biodegradable poly(**lactide** -co-glycolide) (**PLG**) microparticles induced consistent HIV-specific CD4+ and CD8+ T-cell responses in mice. Major histocompatibility complex (MHC) class I-restricted cytotoxic T lymphocytes (CTL) responses were detected following a single systemic immunization with gp120 entrapped microparticles and when given by the intranasal (i.n.) route induced HIV-specific CD8+ CTL and secretory IgA. Furthermore immunization with gp120 entrapped in microparticles generated CD4+ T cells that secreted moderate to high levels of IFN-gamma. Therefore, **PLG** microparticles are a safe and effective means of delivering antigen to the appropriate processing site for the generation of class I-restricted CTL, and are also capable of inducing **Th1** cells.

L10 ANSWER 14 OF 15 TOXLIT
ACCESSION NUMBER: 1995:91346 TOXLIT
DOCUMENT NUMBER: CA-123-122831A
TITLE: Immune responses and protection against Bordetella pertussis infection after intranasal immunization of mice with filamentous hemagglutinin in solution or incorporated in biodegradable microparticles.
AUTHOR: Cahill ES; O'Hagan DT; Illum L; Barnard A; Mills KH G; Redhead K
CORPORATE SOURCE: Department Pharmaceutical Sciences, Nottingham University, Nottingham
SOURCE: Vaccine, (1995). Vol. 13, No. 5, pp. 455-62. CODEN: VACCD. ISSN. 0264-410X.
PUB. COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
FILE SEGMENT: CA
LANGUAGE: English
OTHER SOURCE: CA 123:122831
ENTRY MONTH: 199509
AB The intranasal (i.n.) immunization of mice with Bordetella pertussis filamentous hemagglutinin (FHA) either as a soln. or incorporated in biodegradable microparticles induced very similar immune responses. Both resulted in strong systemic IgG responses to FHA and good levels of anti-FHA IgG and IgA in the lungs of immunized mice. In comparison, the i.p. immunization of mice with FHA, as a soln., engineered anti-FHA antibody responses which were stronger for serum IgG, similar for lung IgG and lower for lung IgA. The anti-FHA antibody levels, as measured by immunosorbent assay, were shown to correlate with their functional activity in the blocking of B. pertussis adhesion to HeLa tissue-culture cells. All three forms of immunization appeared to stimulate T-cell responses as assessed by in vitro antigen-specific spleen cell proliferation and IL-2 secretion indicative of a **Th1** type response, however, cells from i.p. immunized mice only secreted low levels of IL-5. All three methods of FHA immunization provided mice with significant protection against subsequent aerosol challenge with virulent B. pertussis. Mice which had been immunized intra-nasally eliminated the bacteria from their lungs slightly more rapidly than i.p. immunized mice, demonstrating the efficacy of intranasal administration of FHA in soln. and in the more practical biodegradable microparticle form.

L10 ANSWER 15 OF 15 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 95368128 EMBASE
DOCUMENT NUMBER: 1995368128
TITLE: The common mucosal immune system for the reproductive tract: Basic principles applied toward an AIDS vaccine.

AUTHOR: Kiyono H.; Miller C.J.; Lu Y.; Lehner T.; Cranage M.; Huang Y.T.; Kawabata S.; Marthas M.; Roberts B.; Nedrud J.G.; Lamm M.E.; Bergmeier L.; Brookes R.; Tao L.; McGhee J.R.

CORPORATE SOURCE: Collaborat. Mucosal Imm. Res. Group, Immunobiology Vaccine Center, University of Alabama,Birmingham, AL 35294, United States

SOURCE: Advanced Drug Delivery Reviews, (1995) 18/1 (23-51). ISSN: 0169-409X CODEN: ADDREP

COUNTRY: Netherlands

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 004 Microbiology
010 Obstetrics and Gynecology
013 Dermatology and Venereology
026 Immunology, Serology and Transplantation
028 Urology and Nephrology
030 Pharmacology
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The concept of the Collaborative Mucosal Immunization Research Group for AIDS (CMIG) was originally conceived by the AIDS Vaccine Branch, National Institute of Allergy and Infectious Diseases (NIAID) in order to provide support for a cooperative research environment for the development of mucosal immunity to AIDS. We have purposely organized five groups of investigators at five different locations to determine how effective mucosal immunity to AIDS can be optimally approached. CMIG recognizes that both rectal (homosexual) as well as vaginal (heterosexual) infections with HIV are two of the major ways that AIDS currently disseminates through the human population. Thus, we have chosen the SIV model of infection of rhesus macaques, but more importantly the CMIG have joined two of our five components in order to use the significant expertise developed for mucosal transmission of SIV and immunity. Thus, we have brought the extensive expertise with vaginal and rectal immunization and immunity to spread [Drs. Chris Miller and Marta Marthas, California Regional Primate Research Center (CRPRC), Davis and Drs. Thomas Lehner and Martin Cranage, United Medical and Dental School Guy's Hospital, London and the Centre for Applied Microbiology and Research (Guy's/CAMR)]. Two additional components were added in order to perform mucosal immune response studies required to develop and to optimize a mucosal vaccine. First, extensive CD4+ T helper (Th) cell (e.g., **Th1** and Th2) and CD8+ T cell subset studies are a major effort of the coordinating group at the University of Alabama at Birmingham (Drs. Hiroshi Kiyono and Jerry R. McGhee). This component is closely interacting with both the CRPRC and Guy's/CAMR components in terms of SIV-specific CD4+ and CD8+ T cell subset responses. For example, SIV-specific CTL

responses are jointly examined using different techniques by CRPRC, Guy's/CAMR and UAB investigators. Further, it is also important to examine a balance between SIV-specific and **Th1** and Th2 cell responses following mucosal immunization since the Th cell-derived cytokines are essential for the induction of appropriate antigen-specific mucosal immune responses. This issue is currently being extensively examined by the CMIG effort and a summary of our findings is discussed in this review. A major question in mucosal immunity involves the functions of secretory IgA (S-IgA) antibodies and this area is of particular importance in rectal and reproductive tract immunity. A novel and exciting in vitro epithelial cell assay system is used to study how effectively S-IgA neutralizes SIV infection (Drs. John Huang, John Nedrud and Michael Lamm, Case Western Reserve, Cleveland). A clear advantage of this CMIG effort is the unique expertise in design of mucosal delivery systems for an AIDS vaccine. We are using state-of-the-art recombinant bacteria, i.e., rSalmonella and rVibrios for mucosal immunization [Drs. Yichen Lu and Bryan Roberts, Virus Research Institute (VRI), Boston]. In addition, we are also testing other mucosal delivery systems including DNA vaccine, microspheres, cholera toxin (CT) and CT-B, recombinant poliovirus, and immune complexes. These studies represent the first efforts to induce not only Th cell mediated S-IgA responses, but also CTL responses to SIV in primates immunized with different mucosal vector delivery systems. In order to focus our effort for the induction of SIV-specific immune responses following mucosal immunization, investigators from the CMIG are attempting to understand the induction and regulation of antigen-specific immune responses in rhesus macaques mucosally immunized with different preparations of SIV vaccines.

FILE 'CAPLUS' ENTERED AT 15:05:28 ON 04 JUN 2001
L11 233 S (L4 OR L6 OR L7) AND ANTIGEN
L12 12 S L11 AND PERTUSSIS
L13 6 S L12 NOT L8

L13 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:672205 CAPLUS
DOCUMENT NUMBER: 134:212529
TITLE: Encapsulation of conjugate vaccines with Bordetella **pertussis** fimbriae as novel carrier proteins
AUTHOR(S): Crowley-Luke, A.; Sims, M.; Reddin, K.; Vincent, P.; Gorringe, A.; Hudson, M.; Robinson, A.
CORPORATE SOURCE: Centre for Applied Microbiology and Research, Salisbury, SP4 OJG, UK
SOURCE: Proc. Int. Symp. Controlled Release Bioact. Mater. (2000), 27th, 554-555

CODEN: PCRMEY; ISSN: 1022-0178
PUBLISHER: Controlled Release Society, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB B. **pertussis** fimbriae were used as carrier proteins to produce vaccine that would protect against Hib and augment protection induced against B. **pertussis** disease where acellular **pertussis** vaccines deficient in fimbriae are used. Poly(lactide-glycolide) was used for microencapsulation of **antigen**.
IT **34346-01-5**, **Glycolic** acid-**lactic** acid copolymer
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in encapsulation of conjugate vaccines with Bordetella **pertussis** fimbriae as carrier proteins)
REFERENCE COUNT: 7
REFERENCE(S):
(1) Eldridge, J; Controlled Release 1990, V11, P205 CAPLUS
(2) Eldridge, J; Infect Immun 1991, V59, P2978 CAPLUS
(3) Monsigny, M; Annal Biochem 1988, V175, P525 CAPLUS
(4) Olin, P; Lancet 1997, V350, P1569 MEDLINE
(5) Robinson, A; Vaccine 1989, V7, P321 MEDLINE
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:27732 CAPLUS
DOCUMENT NUMBER: 130:86184
TITLE: Vaccines containing Bordetella **pertussis** **antigen**
INVENTOR(S): Farrar, Graham Henry; Jones, David Hugh
PATENT ASSIGNEE(S): Microbiological Research Authority, UK
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9858668	A2	19981230	WO 1998-GB1819	19980622
WO 9858668	A3	19990415		

W: AU, CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

AU 9881194	A1	19990104	AU 1998-81194	19980622
AU 731216	B2	20010329		
EP 1005367	A2	20000607	EP 1998-930917	19980622

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRIORITY APPLN. INFO.: GB 1997-13156 A 19970620
WO 1998-GB1819 W 19980622

AB A vaccinating conjugate comprises an **antigen** conjugated to a carrier selected from Bordetella **pertussis** fimbria, **pertussis** toxin, **pertussis** toxoid, and **pertussis** 69kD protein. The conjugate may also comprise a second **antigen**, different from the first. An oral vaccinating compn. comprises Bordetella **pertussis** fimbria or fimbria-**antigen** conjugate.

IT **26780-50-7**, Poly(glycolide-co-lactide)
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(vaccines contg. Bordetella **pertussis antigen**
)

L13 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:766506 CAPLUS
DOCUMENT NUMBER: 130:21355
TITLE: High-temperature solvent extraction method of making polymer-microencapsulated DNA emulsions for vaccination and gene therapy
INVENTOR(S): Farrar, Graham Henry; Jones, David Hugh; Clegg, James Christopher Stephen
PATENT ASSIGNEE(S): Microbiological Research Authority, UK
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9851279	A2	19981119	WO 1998-GB1403	19980515
WO 9851279	A3	19990218		

W: AU, CA, JP, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

AU 9874408	A1	19981208	AU 1998-74408	19980515
EP 971693	A2	20000119	EP 1998-921621	19980515

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRIORITY APPLN. INFO.: US 1996-745515 19961112
GB 1997-9900 19970515
WO 1998-GB1403 19980515

AB A method of making a microparticle that contains DNA coding for a polypeptide is described in which a solvent extn. method is used and solvent extn. takes place at elevated temp. Oral administration of the microparticle leads to its expression. DNA coding for an immunogen is for stimulating antibody formation in a recipient and DNA coding for a non-immunogenic polypeptide is for gene therapy applications. DNA is incorporated into the microparticle without destruction of its function.

IT **26780-50-7**, **Poly**(**DL-lactide**-co-**glycolide**)
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(high-temp. solvent extn. method of making polymer-microencapsulated DNA emulsions for vaccination and gene therapy)

L13 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1996:76966 CAPLUS
DOCUMENT NUMBER: 124:185414
TITLE: Poly(lactide-co-glycolide) microencapsulation of vaccine **antigens**
AUTHOR(S): Jones, David H.; McBride, Brian W.; Farrar, Graham H.
CORPORATE SOURCE: Salisbury Wilts, SP4 0JG, UK
SOURCE: J. Biotechnol. (1996), 44(1-3), 29-36
CODEN: JBITD4; ISSN: 0168-1656
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Fimbriae from Bordetella **pertussis** were encapsulated in poly(**lactide**-co-glycolide) (**PLG**) microspheres of a size appropriate for oral administration. The binding of antibodies which react with conformational or linear fimbrial epitopes, to fimbriae released from microspheres, suggested that the process of microencapsulation was not detrimental to the native integrity of the protein. Mice were immunized by oral gavage with a single dose of microencapsulated fimbriae, or with fimbriae adsorbed onto alhydrogel and administered by i.p. injection. The resulting immune responses in serum were comparable but only oral administration of microencapsulated fimbriae elicited specific immune responses in external secretions. Six weeks after immunization, both groups of immunized animals were protected against challenge with live B. **pertussis**.

IT **26780-50-7**, **Poly**(**DL-lactide**-co-**glycolide**)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(poly(lactide-co-glycolide) microencapsulation of vaccine